

Michigan Prams



Pregnancy Risk Assessment Monitoring System



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of Community Health***



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EXECUTIVE SUMMARY

This is a summary of selected results of the 1999 Michigan Pregnancy Risk Assessment Monitoring System (PRAMS). The survey described here was conducted with a random sample of women who had given birth to a live infant in Michigan in 1999. The topics of the survey were selected based on their relevance to infant mortality and birth outcomes. Some of the highlights of the findings are presented here.

- Of pregnancies resulting in a live birth in Michigan in 1999, it was estimated that 39.8 percent were unintended (i.e., the pregnancy was not wanted or it was wanted later than it happened).
- Overall, 7.1 percent of live births were low birthweight infants. Teenaged women and women 20-29 years of age were more likely to give birth to low birthweight infants than were women 30 years and older.
- Nearly one-third (28.9 percent) of respondents were receiving Medicaid at the time of delivery.
- Three in 10 respondents (33.7 percent) reported that they were receiving assistance from the Women, Infants, and Children (WIC) program.
- Prenatal care was initiated in the first trimester by 85.8 percent of the respondents.
- About 83 percent (82.5 percent) of respondents indicated that they had their first prenatal care visit as early as they had desired.
- 70.2 percent of respondents indicated that private health insurance was a source of prenatal care payments.
- Approximately two-thirds of respondents (66.9 percent) reported having breastfed their infant for any length of time.
- The three main reasons for stopping breastfeeding were having to go to work or school (31.0 percent), the mother did not have enough milk (28.7 percent), and the infant did not breastfeed very well (20.5 percent).
- When asked about specific stressors, 71.9 percent of respondents indicated that they had experienced at least one of the stressors in the year prior to childbirth, and 19.1 percent had experienced four or more of the stressors. Stressors included items such as moving to a new home, a family death or illness, being unable to pay bills, and losing one's job.
- Overall, 30.5 percent of respondents smoked cigarettes three months before pregnancy, 19.1 percent smoked in the last three months of the pregnancy, and 25.9 percent smoked in the three month period following childbirth.
- 4.7 percent of respondents reported drinking alcohol in the last three months of the pregnancy.

INTRODUCTION

The Michigan Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing survey project of post-partum mothers in Michigan. PRAMS is part of an effort to reduce infant mortality and adverse birth outcomes by providing information useful for developing and implementing intervention programs and for evaluating existing programs. This data is used to monitor progress toward national and state pregnancy-related health objectives, including the increase of positive birth outcomes. PRAMS is also used to identify and monitor selected self-reported maternal behaviors and experiences that occur before, during, and after pregnancy among women who deliver live-born infants.

The indicators in this report cover a variety of topics, including low birthweight, birth control use, intendedness of pregnancy, health insurance, prenatal care, alcohol and tobacco use, major life stressors during pregnancy, intensive care for infants, hospital stays (pre-delivery and delivery), breastfeeding, resources needed and resources accessed.

The data collection methods used by PRAMS include several components. In 1999 approximately 200 post-partum women were selected monthly from a frame of eligible birth certificates and were sent mailed surveys. If the women did not initially respond, follow-ups included additional mailings and telephone contact. In order to increase participation of urban and minority women, data collection also included a hospital component. In this component, black mothers were sampled from hospital delivery logs and interviews were attempted before the mother left the hospital. A mailed questionnaire followed two to six months after the in-hospital interview, which focused on post-partum experiences (See Methodology for more details).

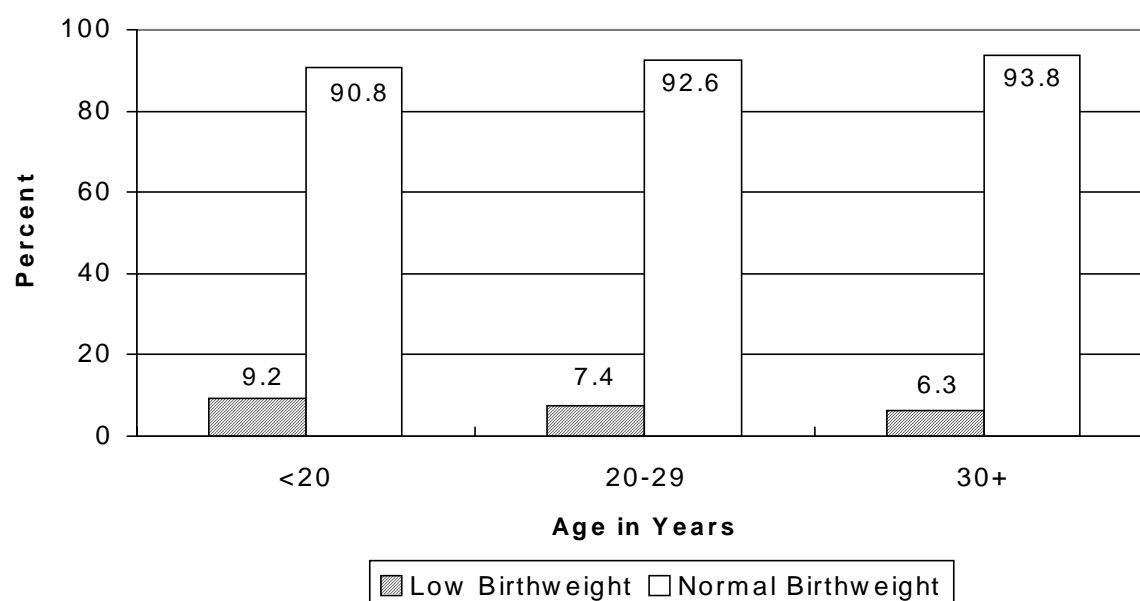
This report covers results from 1999 calendar year data. The body of the report provides graphical presentation of selected results. All results presented are weighted which provides estimates that are reflective of Michigan women who had a live birth in 1999 (see Appendix I for further information on weighting). Results are also presented along with demographic characteristic breakdowns in appended tables. The 95 percent confidence intervals (CI) are included in the appended tables and are referenced in the text with the \pm symbol. PRAMS data are intended to be representative of women whose pregnancies resulted in a live birth. Therefore, caution should be used in generalizing the results to all pregnant women.

1999 RESULTS

Low Birthweight

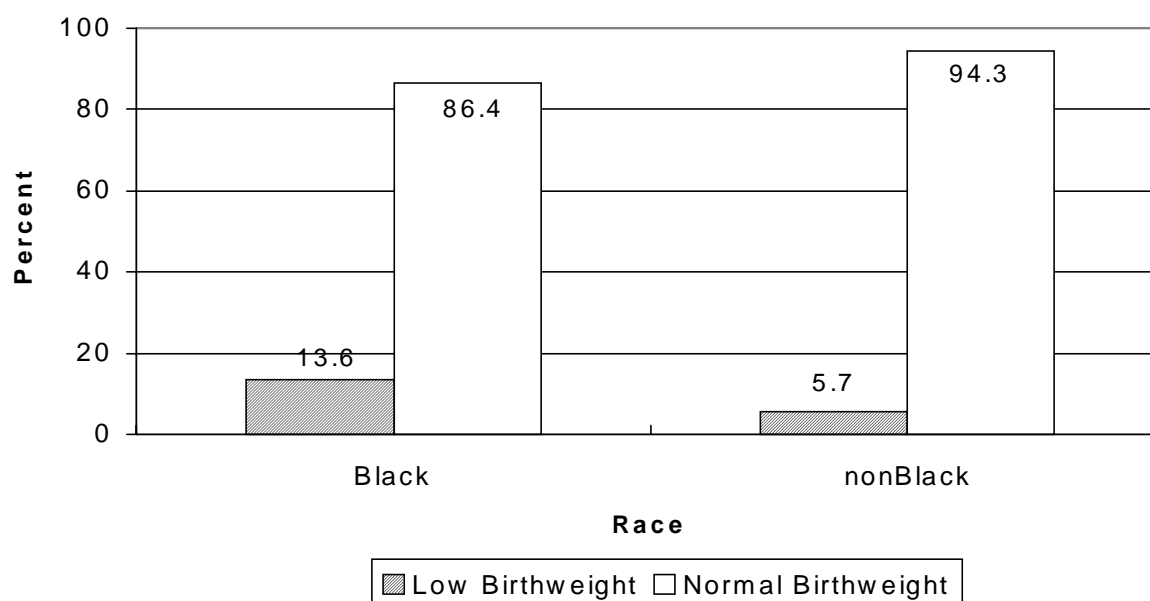
About seven percent (7.1%, 95% CI ± 0.2) of respondents gave birth to infants who had low birthweight (less than 2,500 grams). The likelihood of having a low birthweight infant was related to age, with the highest levels of low birthweight infants among women less than 20 years old, and 20-29 years of age. (Figure 1, Table 2 in Appendix II).

FIGURE 1
Percentage of Low and Normal Birthweight Infants
by Mother's Age at Delivery
1999 Michigan PRAMS



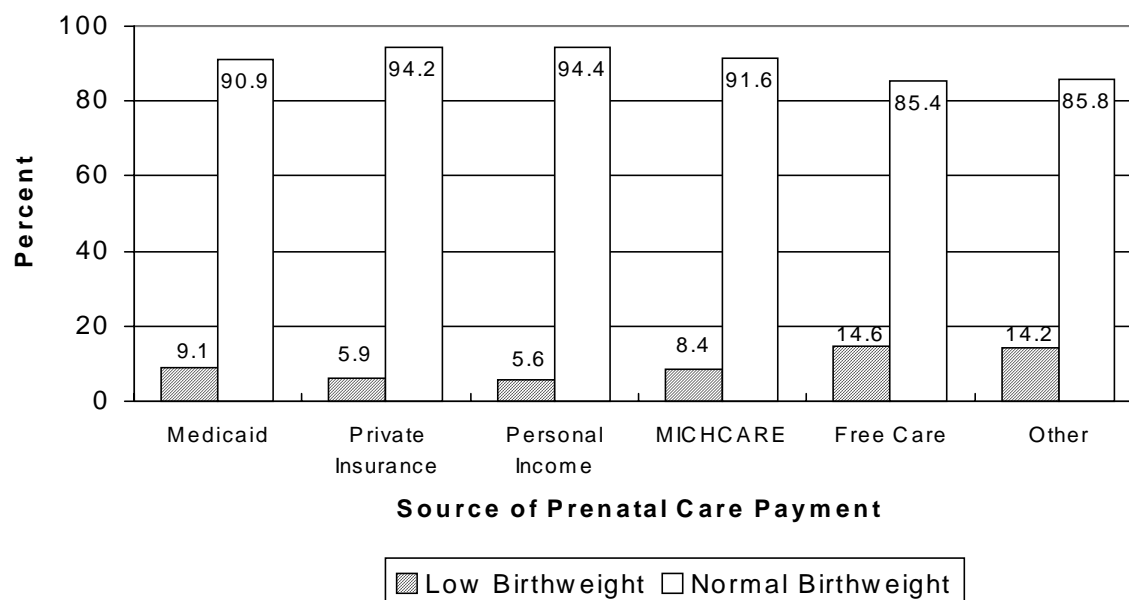
Black mothers were more than twice as likely to have a low birthweight infant than were non-black mothers (Figure 2, Table 2 in Appendix II).

FIGURE 2
Percentage of Low and Normal Birthweight Infants
by Mother's Race
1999 Michigan PRAMS



Women who had Medicaid or free care as a source of prenatal care payments were almost twice as likely to have a low birthweight infant compared with women who had personal income as a source of prenatal care payments (Figure 3, Table 11 in Appendix II).

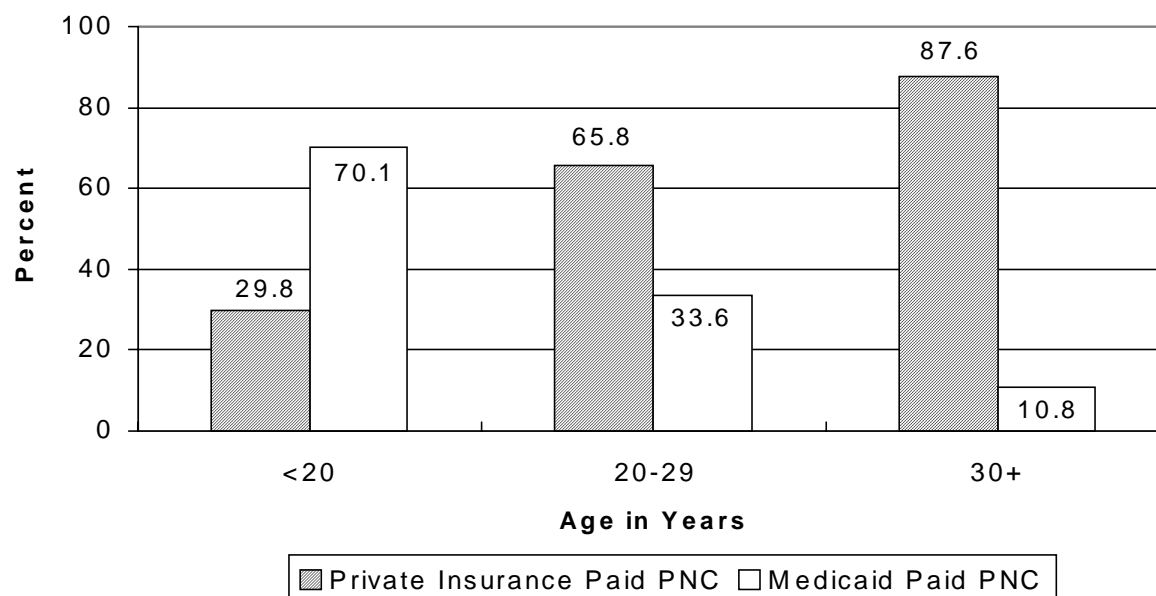
FIGURE 3
Infant's Birthweight by Source of Prenatal Care Payment
1999 Michigan PRAMS



Health Insurance and Medicaid Coverage of Prenatal Care

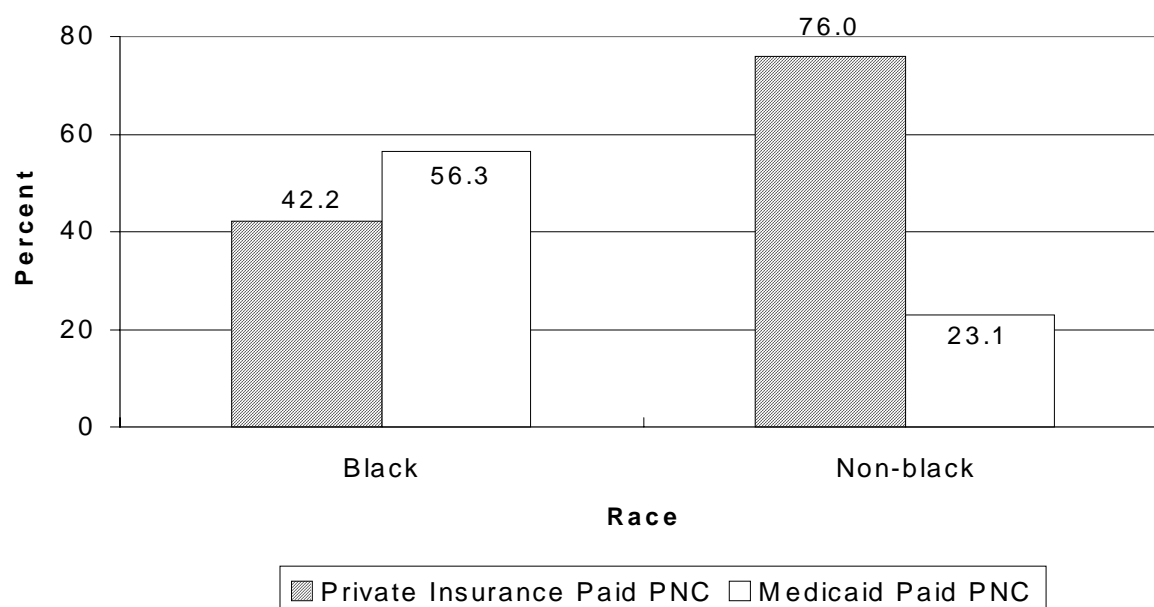
Respondents indicated whether they had private health insurance, Medicaid, personal income, or other sources of payment for prenatal care (PNC). Respondents could indicate more than one source. Over two-thirds (70.2%, 95% CI ± 3.2) of respondents had private health insurance, and about one-third (28.9%, 95% CI ± 3.2) had Medicaid coverage (Table 9 of Appendix II). Medicaid coverage varied by age, with over 70 percent of teenaged respondents having Medicaid pay for PNC, but only 10.8 percent of women aged 30 or older having Medicaid (Figure 4, Table 10 in Appendix II).

FIGURE 4
Percentage of Respondents Who Had Health Insurance or
Medicaid Coverage for Prenatal Care by Mother's Age
1999 Michigan PRAMS



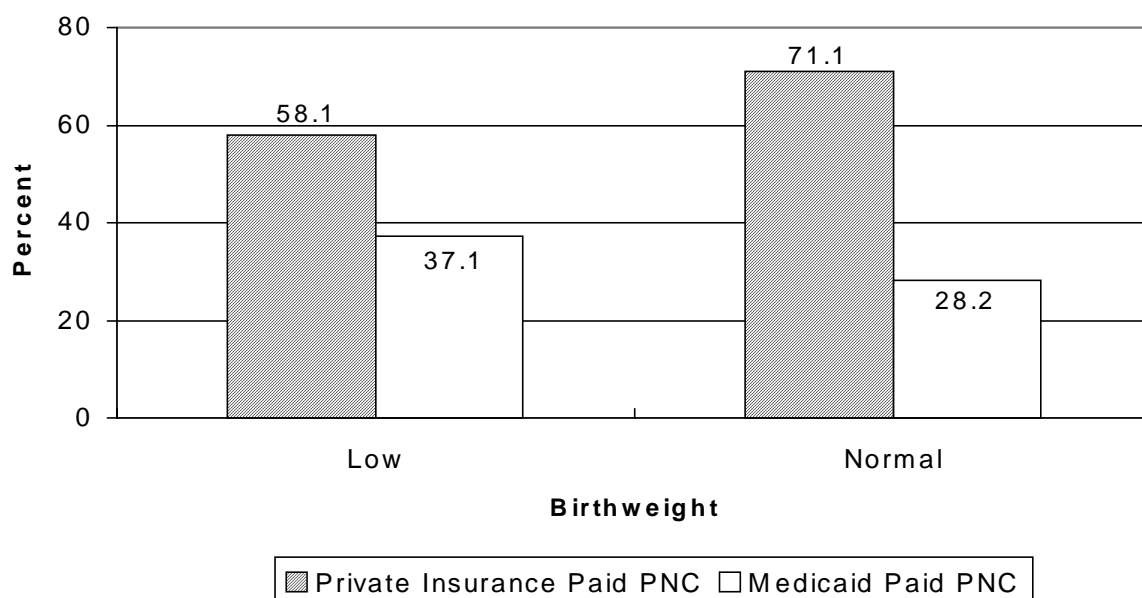
Medicaid coverage for PNC among black respondents was over twice that of non-black respondents (Figure 5, Table 10 of Appendix II).

FIGURE 5
Percentage of Respondents Who Had Health Insurance or Medicaid
Coverage for Prenatal Care by Mother's Race
1999 Michigan PRAMS



Among women with low birthweight infants, 37.1 percent (95% CI ± 3.4) had Medicaid coverage for PNC (Figure 6, Table 10 in Appendix II). Among women with normal birthweight infants, 28.2 percent (95% CI ± 3.4) had Medicaid.

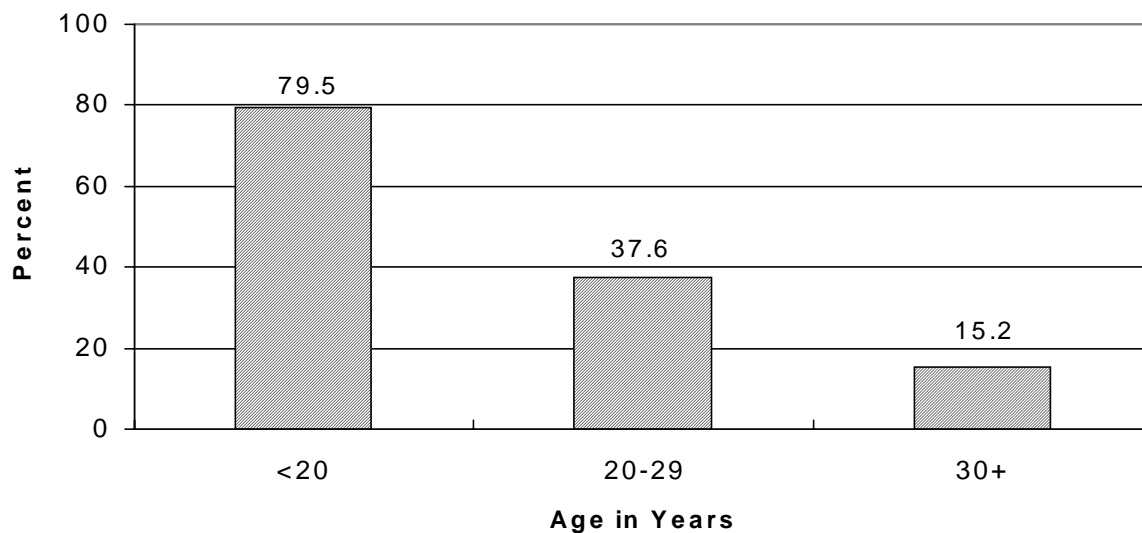
FIGURE 6
Percentage of Respondents Who Had Health Insurance or Medicaid
Coverage for Prenatal Care by Infant's Birthweight
1999 Michigan PRAMS



Mothers Receiving WIC

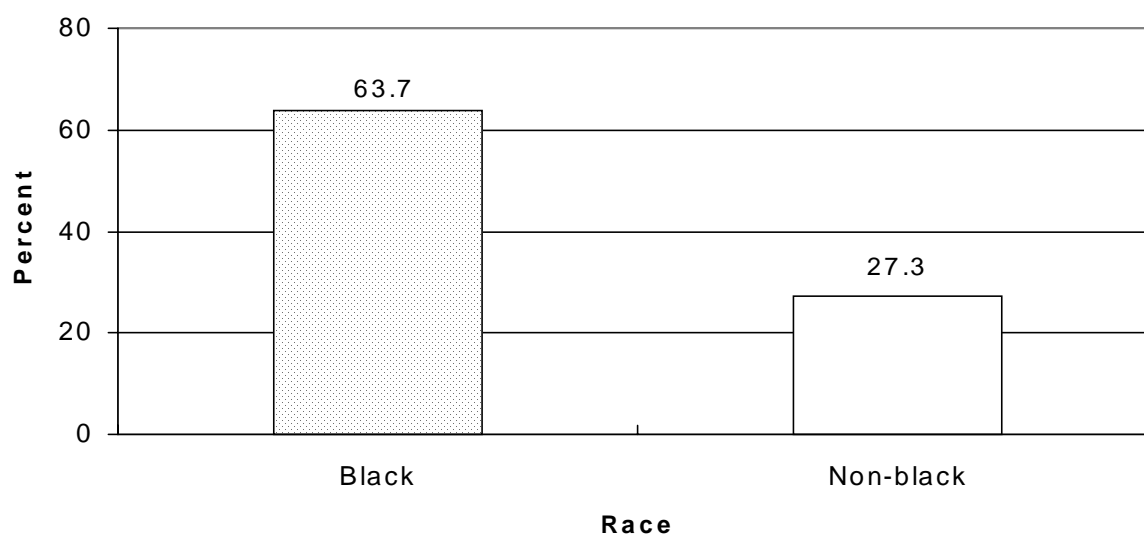
Three in 10 respondents (33.7%, 95% CI ± 3.3) reported that they were receiving assistance from the Women, Infants, and Children program (WIC). This varied by age, however, decreasing with increasing age (Figure 7). Respondents under age 20 were five times as likely to be receiving WIC as were women aged 30 and older. (Table 18 in Appendix II).

FIGURE 7
Percentage of Respondents Receiving WIC by Age
1999 Michigan PRAMS



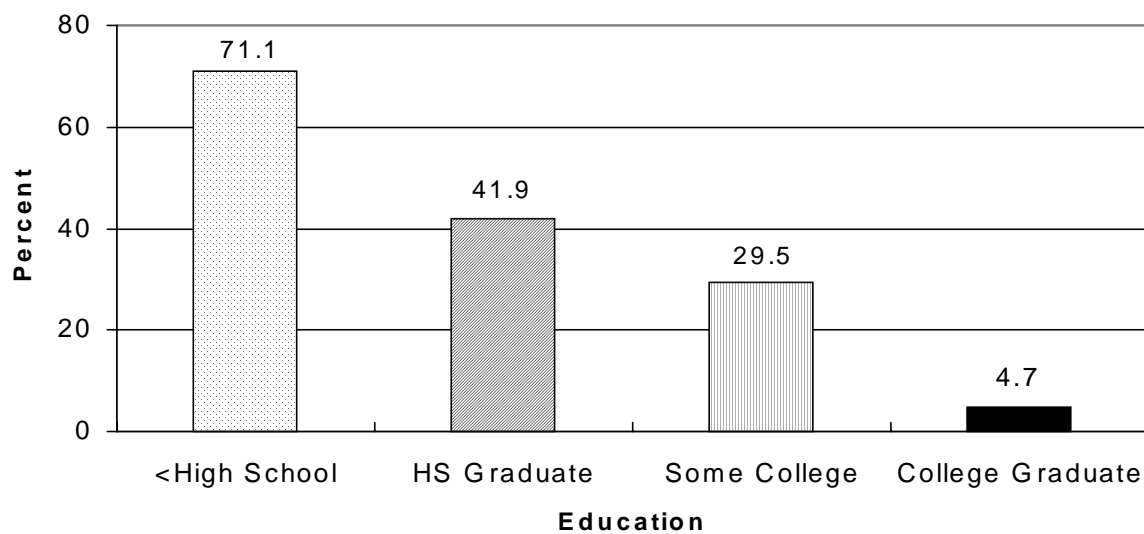
More than twice as many black respondents reported being WIC participants compared to non-black respondents (Figure 8, Table 18 in Appendix II).

FIGURE 8
Percentage of Respondents Receiving WIC by Race
1999 Michigan PRAMS



The proportion of respondents participating with WIC declined dramatically with education from 71.1 percent (95% CI ± 9.5) among respondents with less than a high school diploma to 4.7 percent (95% CI ± 2.6) among respondents with a college degree (Figure 9, Table 18 in Appendix II).

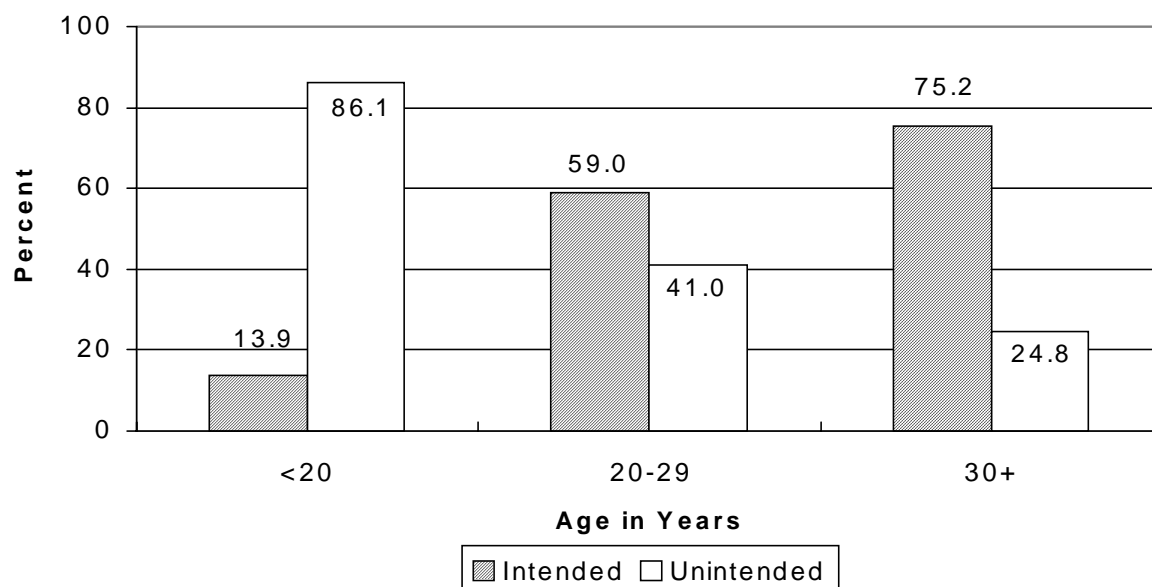
FIGURE 9
Percentage of Respondents Receiving WIC
by Educational Level
1999 Michigan PRAMS



Unintended Pregnancies

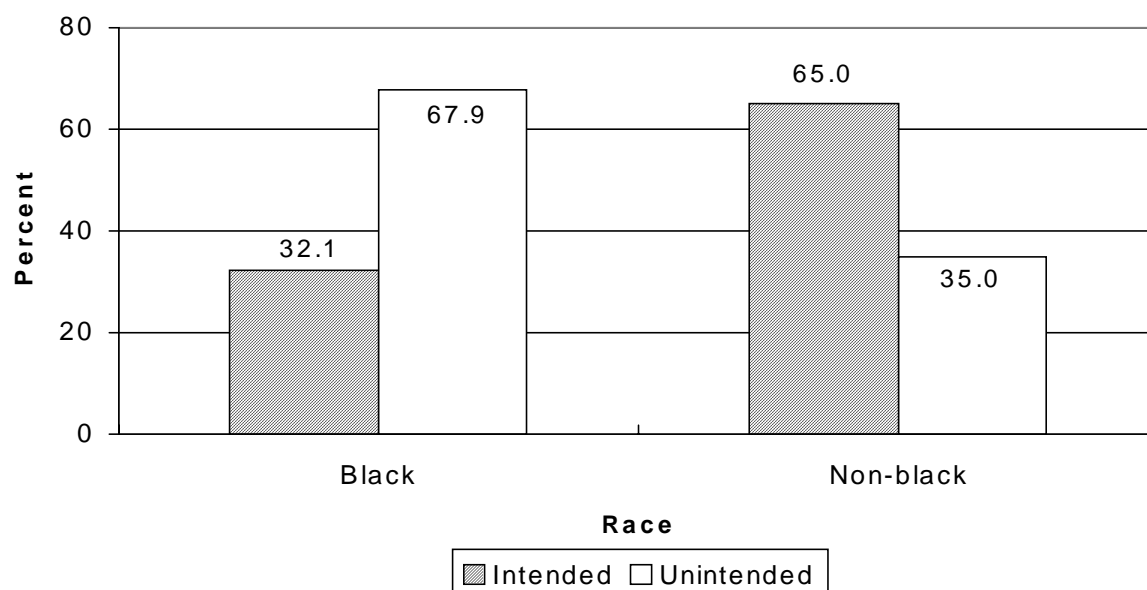
Forty percent of live births in Michigan in 1999 resulted from pregnancies that were unintended (39.8%, 95% CI ± 3.7). Intended was defined as becoming pregnant when it was wanted or later than it was wanted. Unintended was defined as becoming pregnant sooner than was wanted or not wanting to become pregnant (See Table 3 and 4 in Appendix II for more information). Age was related to this indicator. Teen-aged women were more likely to give birth as a result of an unintended pregnancy (86.1%, 95% CI ± 9.6), compared to women in their 20s (41.0%, 95% CI ± 5.0) and those over age 29 (24.8%, 95% CI ± 5.2) (Figure 10, Table 4 in Appendix II).

FIGURE 10
Percentage of Unintended Live Births by Mother's Age
1999 Michigan PRAMS



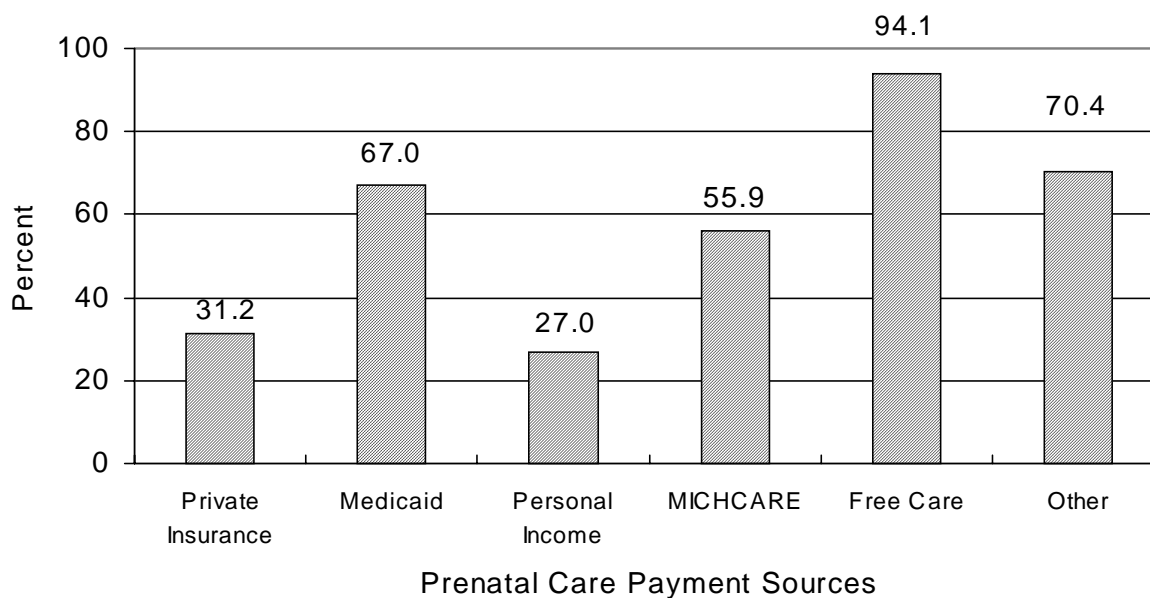
Among black respondents, 67.9 percent of live births were the result of an unintended pregnancy, (67.9%, 95% CI \pm 4.4), which was nearly twice the proportion of unintended pregnancy among non-black respondents (35.0%, 95% CI \pm 4.3). (Figure 11, Table 4 in Appendix II).

FIGURE 11
Percentage of Unintended Live Births by Mother's Race
1999 Michigan PRAMS



Among women who had Medicaid-paid prenatal care, two-thirds had unintended pregnancies, (67.0%, 95% CI \pm 6.6), which was a large proportion compared to women who had other sources of payment for prenatal care (Figure 12, Table 26 in Appendix II).

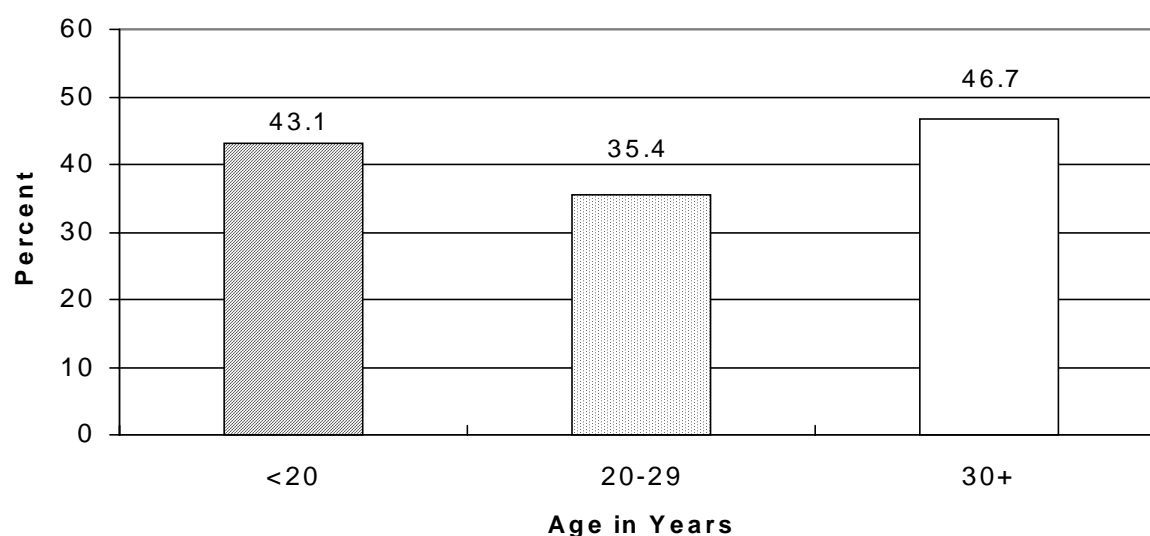
FIGURE 12
Percentage of Unintended Live Births
by Prenatal Care Payment Source
1999 Michigan PRAMS



Birth Control Use Among Women Not Intending Pregnancy

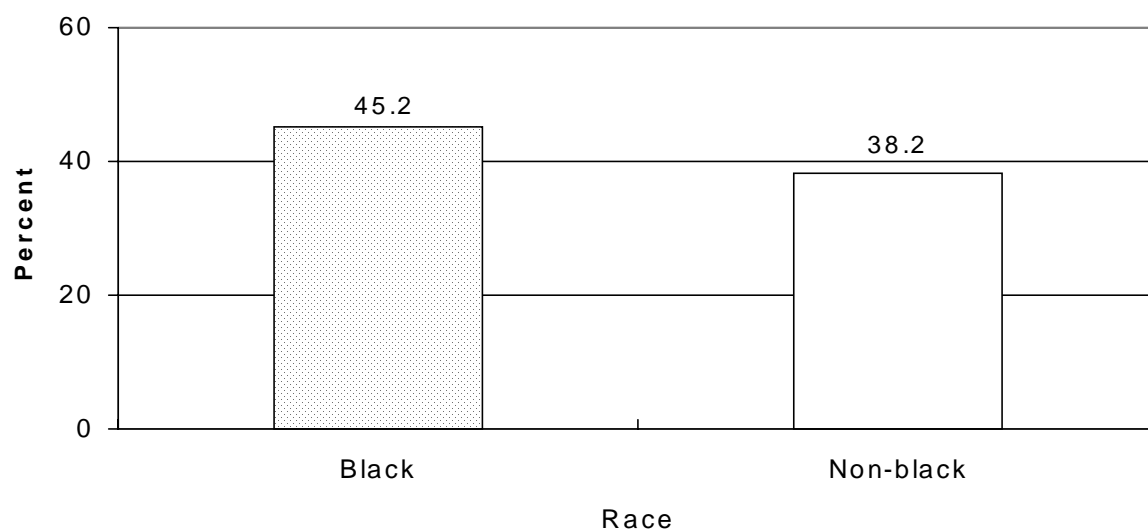
Overall, about one in five respondents (20.6%, 95% CI ± 2.9) (see Table 5A in Appendix II) were using some method of birth control at the time the pregnancy occurred. Among women who were not intending pregnancy, however, 40.0 percent (95% CI ± 5.9) were using birth control (See Table 5 in Appendix II). Younger respondents who did not intend pregnancy were less likely to report the use of birth control at the time pregnancy occurred compared with older respondents (Figure 13, Table 5 in Appendix II).

FIGURE 13
Use of Birth Control at the Time Pregnancy Occurred Among Mothers
Who Did Not Intend to Become Pregnant by Mother's Age
1999 Michigan PRAMS



There was little difference in the use of birth control by race among women who had not intended pregnancy (Figure 14, Table 5 in Appendix II)

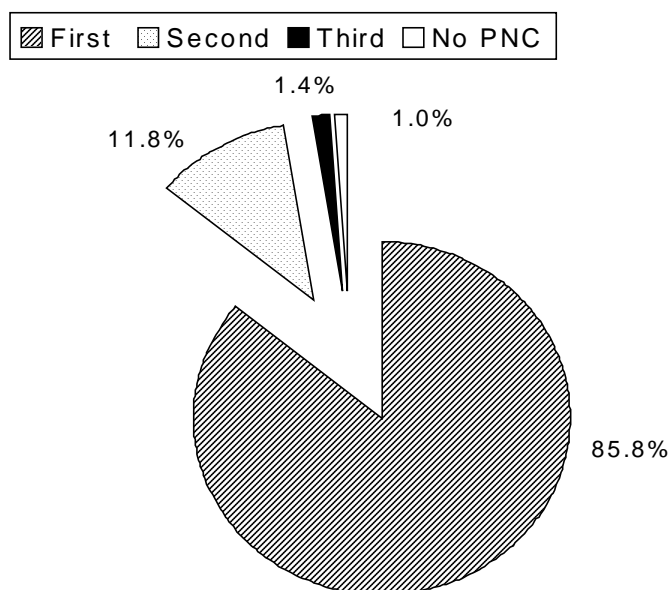
FIGURE 14
Use of Birth Control at the Time Pregnancy Occurred Among Mothers
Who Did Not Intend to Become Pregnant by Mother's Race
1999 Michigan PRAMS



Prenatal Care

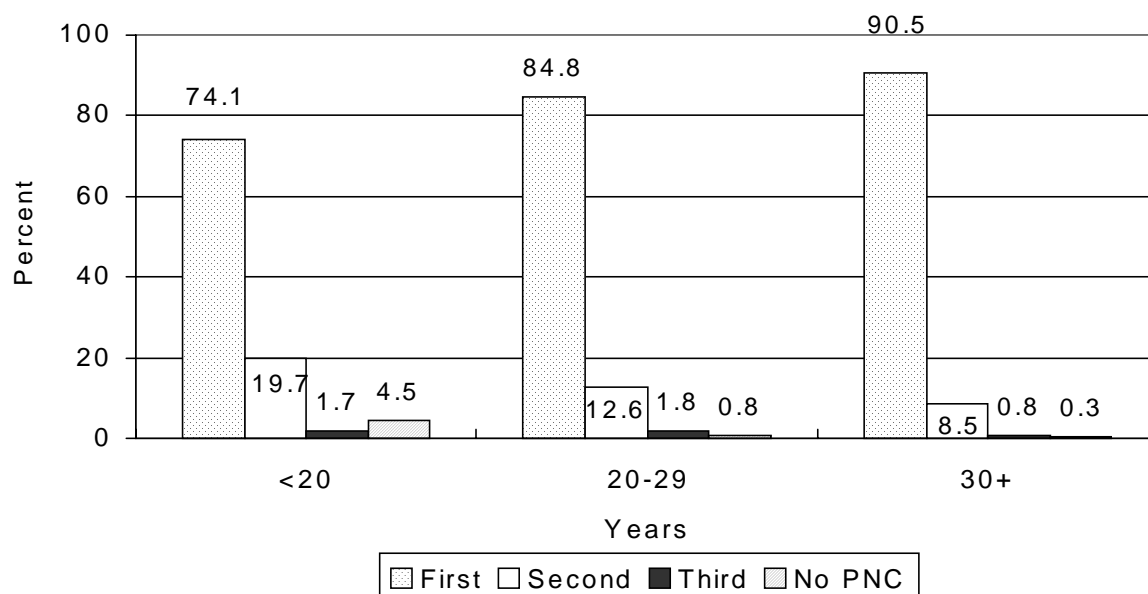
Prenatal care was initiated during the first trimester by 85.8 percent (95% CI ± 2.5) of the respondents in 1999 Michigan PRAMS (Figure 15, Table 6 in Appendix II).

FIGURE 15
Trimester When Prenatal Care Was Started
1999 Michigan PRAMS



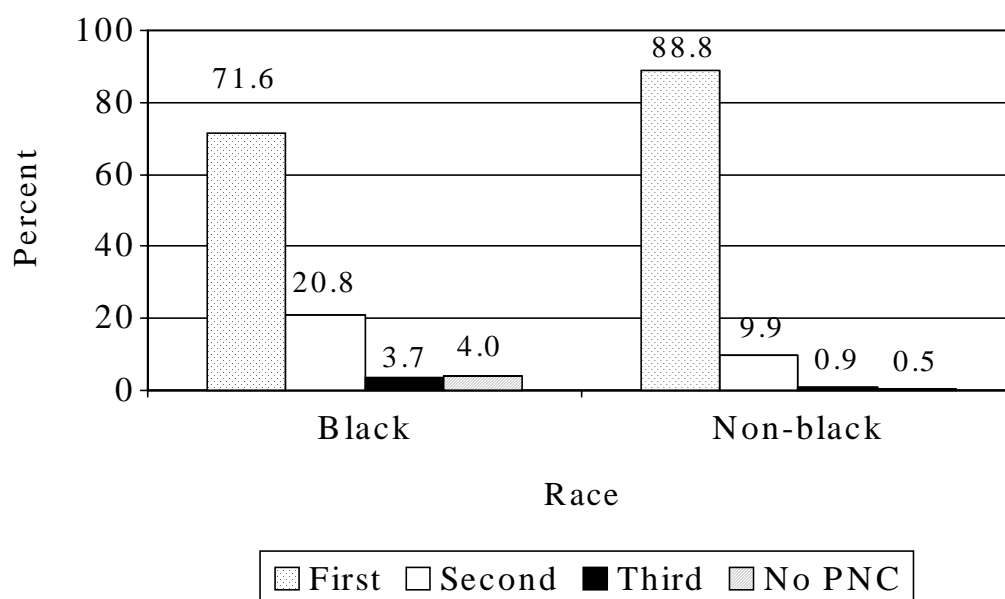
Respondents aged 20 or older were more likely to initiate prenatal care during the first trimester compared to teenage respondents (Figure 16, Table 6 in Appendix II).

FIGURE 16
Trimester When Prenatal Care Started by Mother's Age
1999 Michigan PRAMS



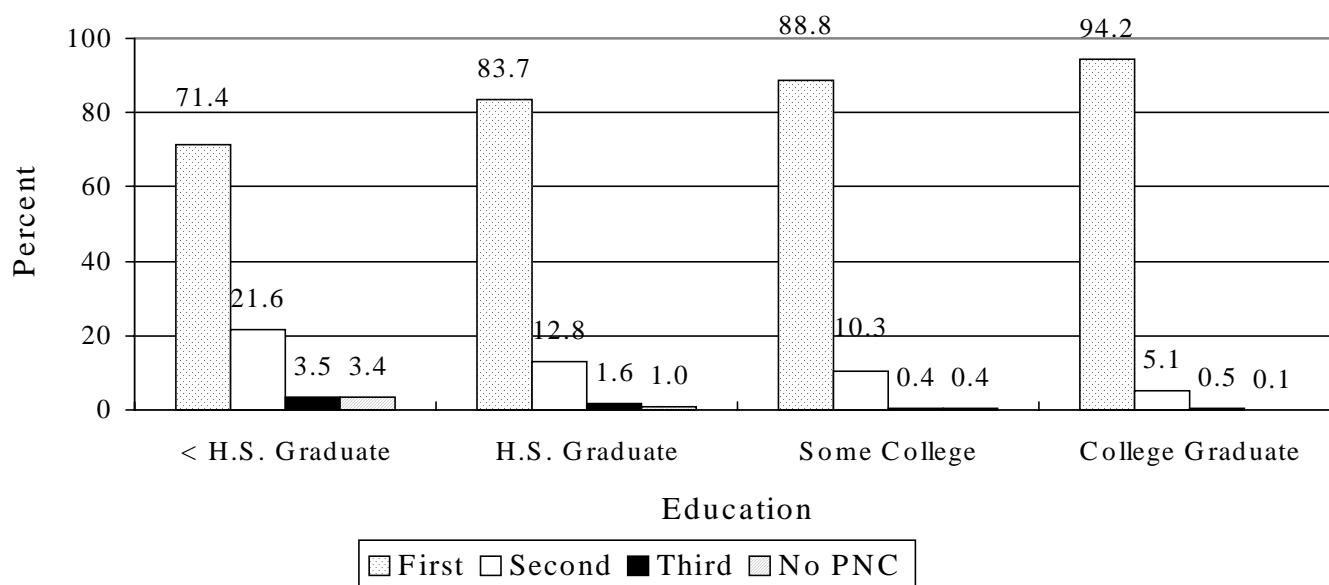
Non-black respondents were more likely to initiate prenatal care during the first trimester compared to black respondents (Figure 17, Table 6 in Appendix II).

FIGURE 17
Trimester When Prenatal Care Started by Mother's Race
1999 Michigan PRAMS



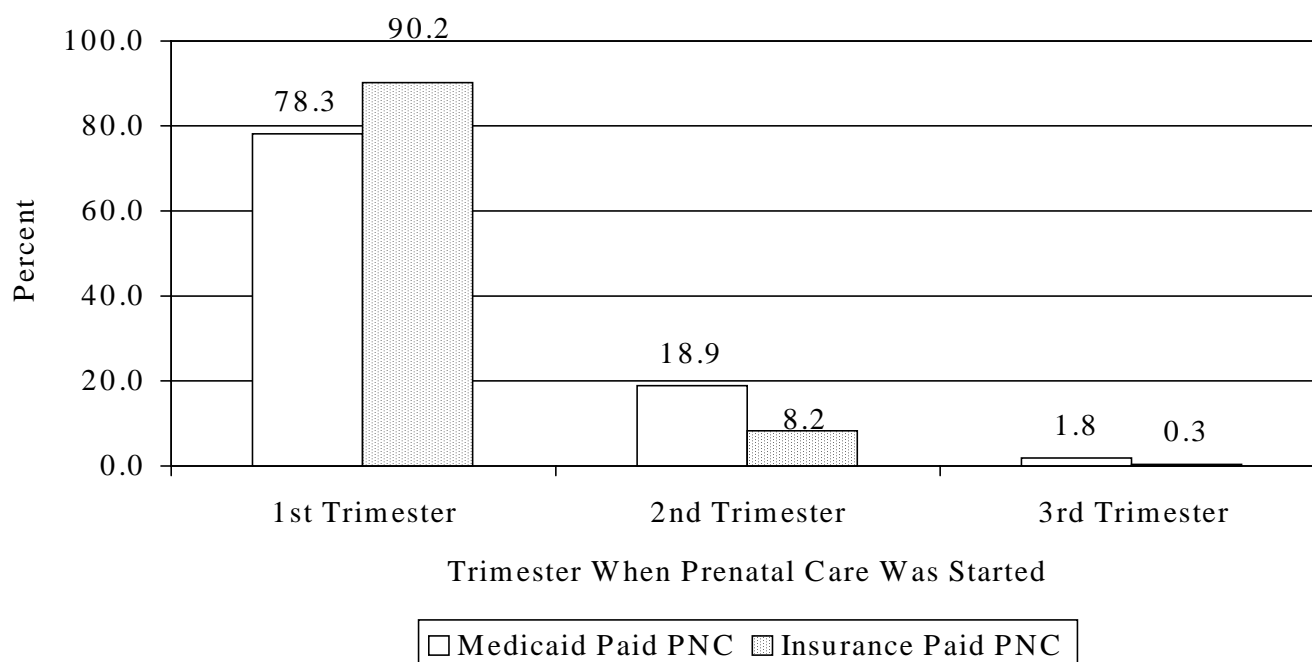
Education level was also related to when prenatal care was started. Respondents who had higher levels of education were more likely to report initiating prenatal care in the first trimester, compared to respondents with lower levels of education (Figure 18, Table 6 in Appendix II).

FIGURE 18
Trimester When Prenatal Care Started by Mother's Education Level
1999 Michigan PRAMS



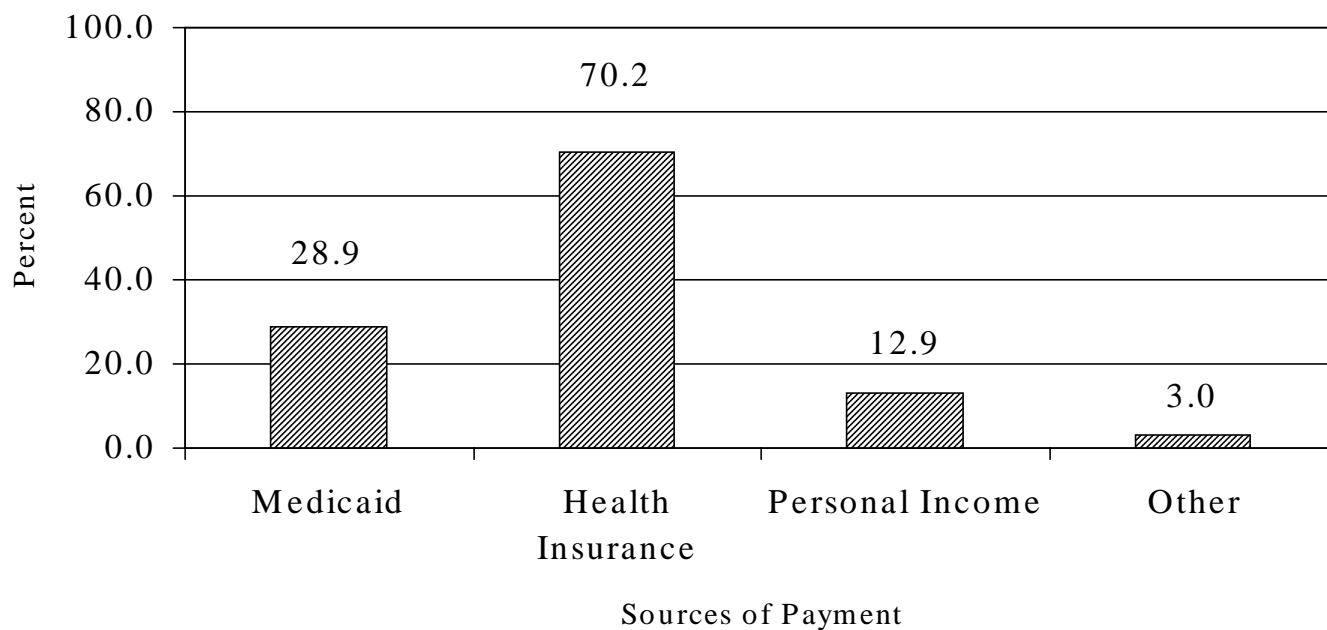
Among respondents who had Medicaid-paid PNC, 78.3 percent (95% CI \pm 5.1) started PNC in the first trimester (Figure 19). Among respondents who had private insurance pay for PNC, 90.2 percent (95% CI \pm 2.5) began PNC in the first trimester. Respondents who had Medicaid-paid PNC were twice as likely to have PNC initiated in the second trimester compared to respondents with private insurance (Figure 19, Table 6A in Appendix II).

FIGURE 19
Trimester When Prenatal Care Started by Source of
Prenatal Care Payments
1999 Michigan PRAMS



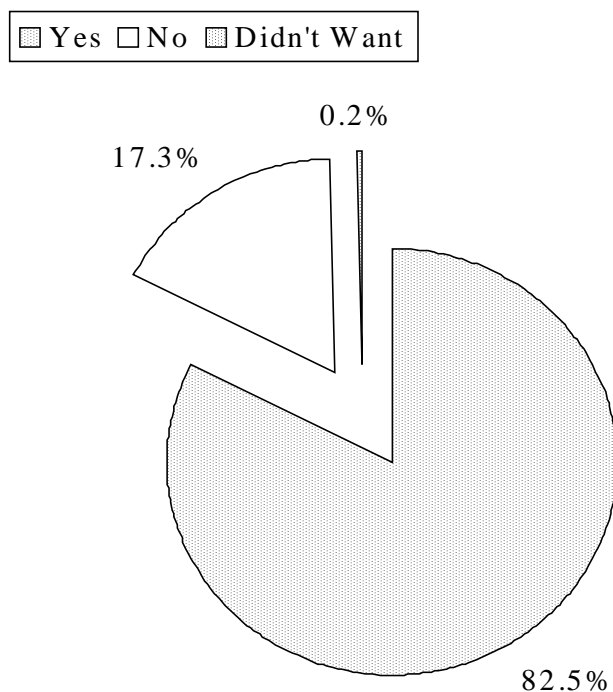
Respondents were asked the sources of payment for their prenatal care. Some indicated more than one source of care payment, thus the percents add up to more than 100 percent. About 70 percent of respondents indicated that private health insurance was a source of payment for the costs of prenatal care, and 12.9 percent indicated that personal income was a source of payment for the costs of prenatal care (Figure 20, Table 9 in Appendix II).

FIGURE 20
Distribution of Sources of Payment for Prenatal Care (%)
1999 Michigan PRAMS



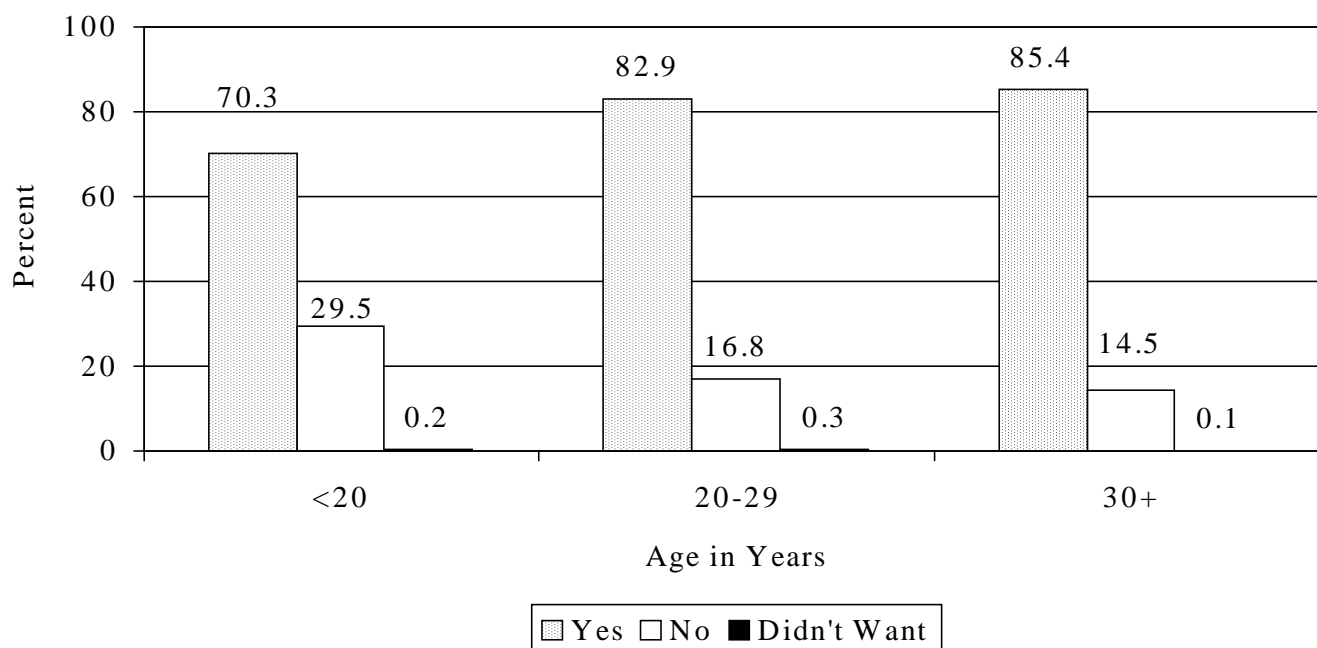
Respondents were asked if they had received the first prenatal care visit as early as they had desired. About 80 percent (82.5%, 95% CI ± 2.7) indicated that they had received the first prenatal care visit as early as they had desired (Figure 21, Table 7 in Appendix II).

FIGURE 21
Percentage of Respondents Who Started Prenatal Care
as Early as They Desired
1999 Michigan PRAMS



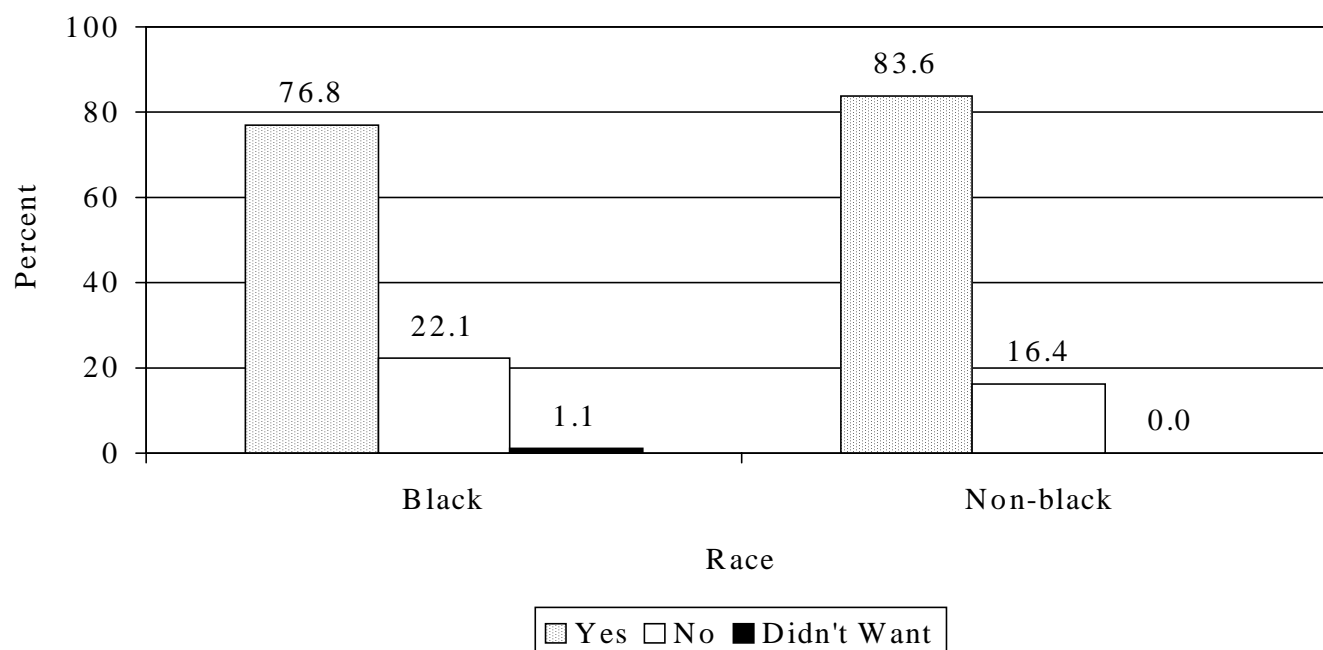
Over two-thirds (70.3%, 95% CI \pm 10.8) of teenaged respondents affirmed this (receiving prenatal care as early as desired) compared to nearly all of older respondents (Figure 22, Table 7 in Appendix II).

FIGURE 22
Percentage of Respondents Who Started Prenatal Care
as Early as They Desired by Mother's Age
1999 Michigan PRAMS



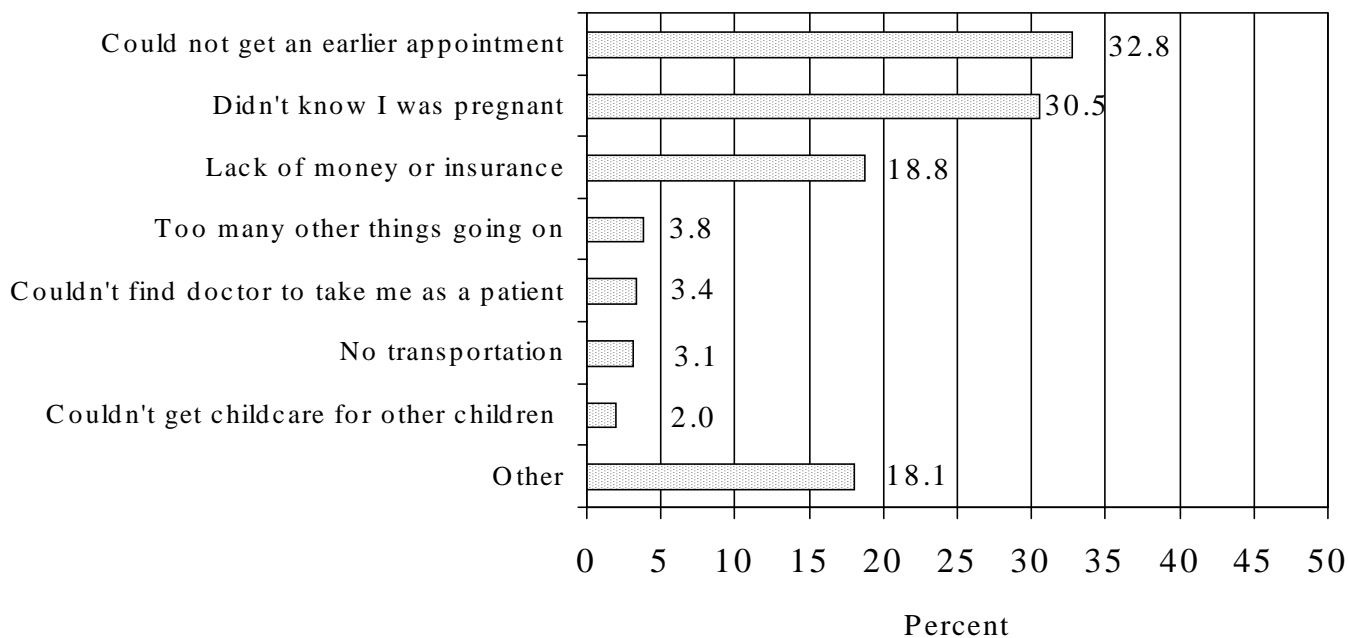
Non-black respondents (83.6%, 95% CI \pm 3.3) were more likely to affirm that they had received the first prenatal care visit as early as they had desired compared to black respondents (76.8%, 95% CI \pm 3.4) (Figure 23, Table 7 in Appendix II).

FIGURE 23
Percentage of Respondents Who Started Prenatal Care
as Early as They Desired by Mother's Race
1999 Michigan PRAMS



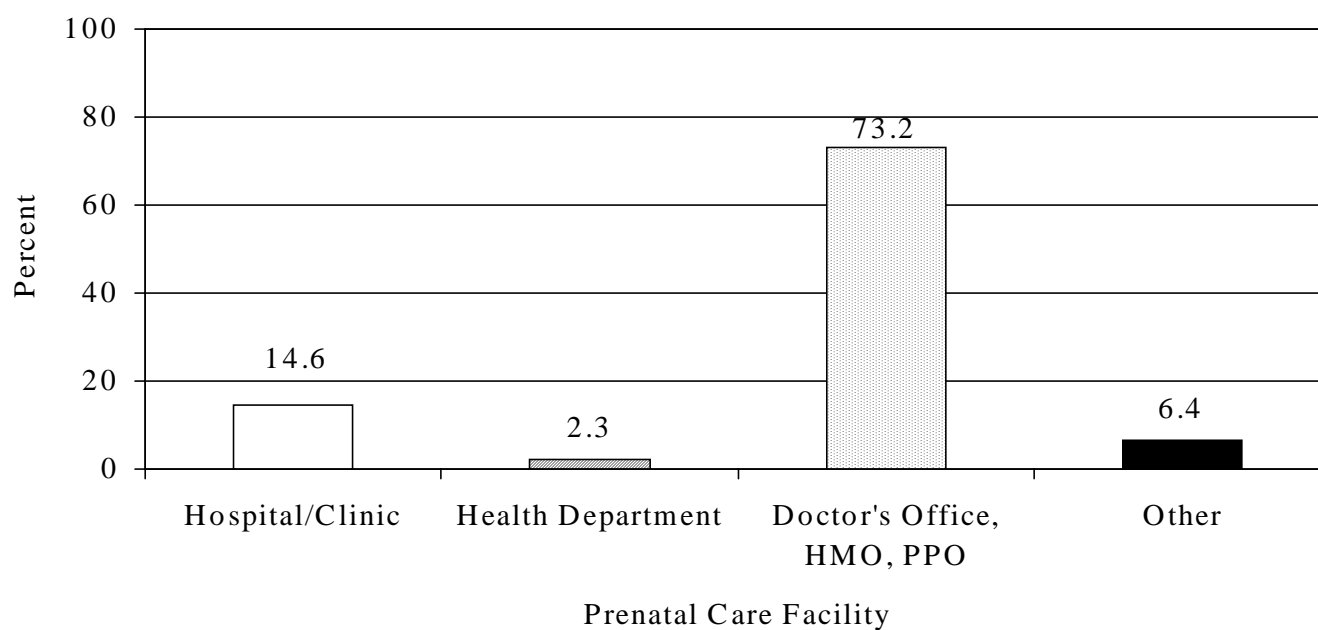
Among those who did not receive prenatal care as early as desired, over one-third indicated that they had difficulty getting an appointment, and another 30 percent (30.5%, 95% CI ± 7.7) indicated that they had not realized that they were pregnant (Figure 24, Table 8 in Appendix II).

FIGURE 24
Reasons for Not Starting Prenatal Care as Early as Desired (%)
1999 Michigan PRAMS



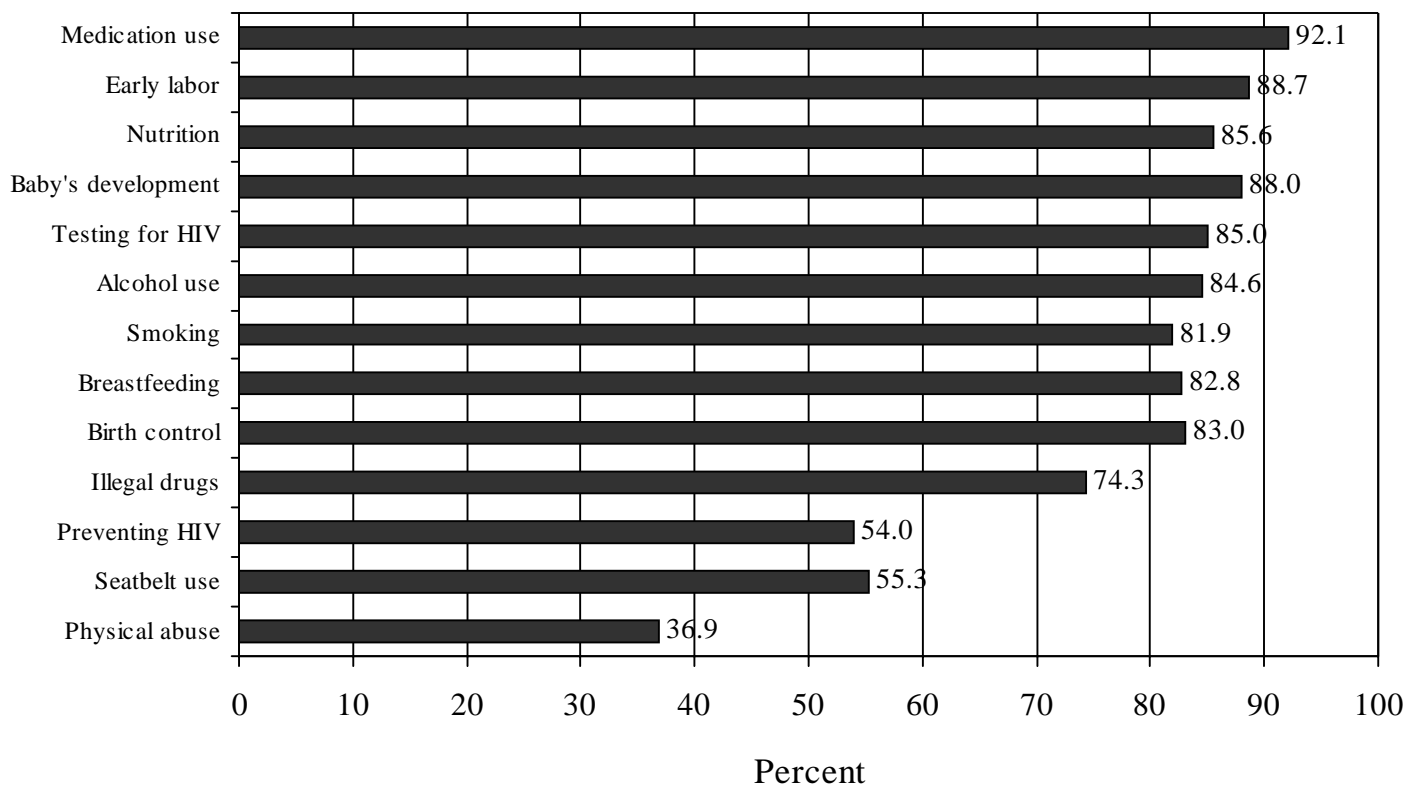
Most of the prenatal care services were delivered at a physician's office or an HMO or PPO clinic (Figure 25, Table 12 in Appendix II).

FIGURE 25
Distribution of Facilities Where Prenatal Care Was Received (%)
1999 Michigan PRAMS



Respondents indicated whether on any of their prenatal care visits a doctor, nurse or other health care worker had talked with them about specific topics. Nearly all respondents (92.1%, 95% CI \pm 1.9) reported that a health care provider had discussed medication use during a prenatal care visit, but approximately one-third (36.9%, 95% CI \pm 3.5) reported that a health care provider had discussed physical abuse of women by their husbands or partners (Figure 26, Table 13 in Appendix II).

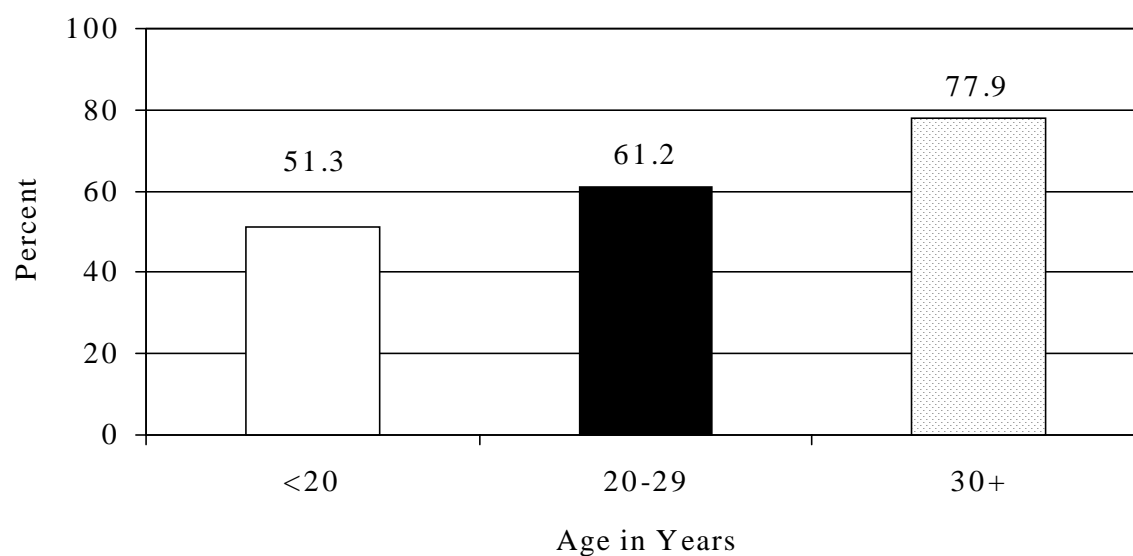
FIGURE 26
Topics Addressed by Health Care Professionals During Prenatal Care Visits (%)
1999 Michigan PRAMS



Breastfeeding

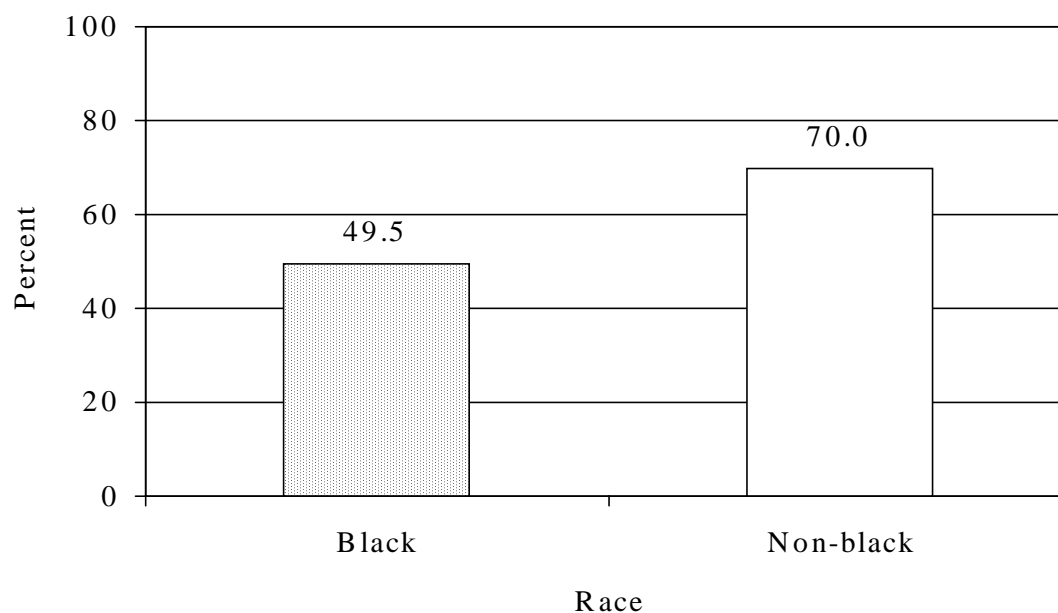
Breastfeeding was defined as a mother having breastfed her newborn for any length of time, including less than one week. Overall, 66.9 percent (95% CI ± 3.5) of respondents breastfed their newborns. The likelihood of breastfeeding tended to increase with age (Figure 27, Table 15 in Appendix II).

FIGURE 27
Percentages of Mothers Who Ever Breastfed by Mother's Age
1999 Michigan PRAMS



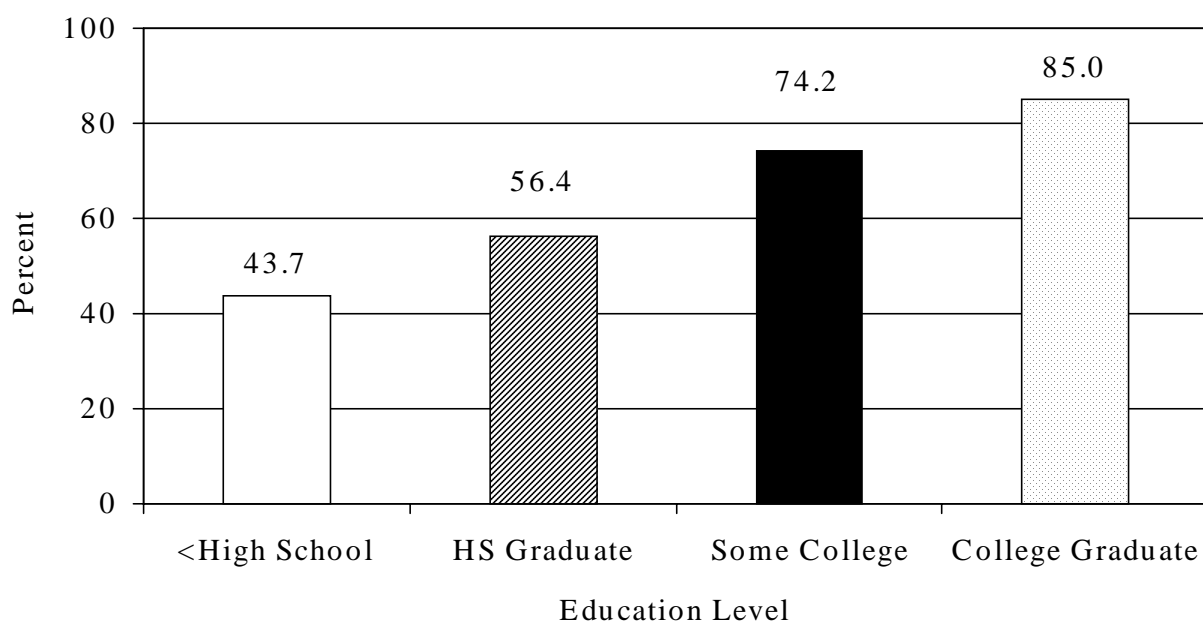
The proportion of non-black respondents who indicated that they breastfed their newborns was much higher than for black respondents (Figure 28, Table 15 in Appendix II).

FIGURE 28
Percentages of Mothers Who Ever Breastfed by Mother's Race
1999 Michigan PRAMS



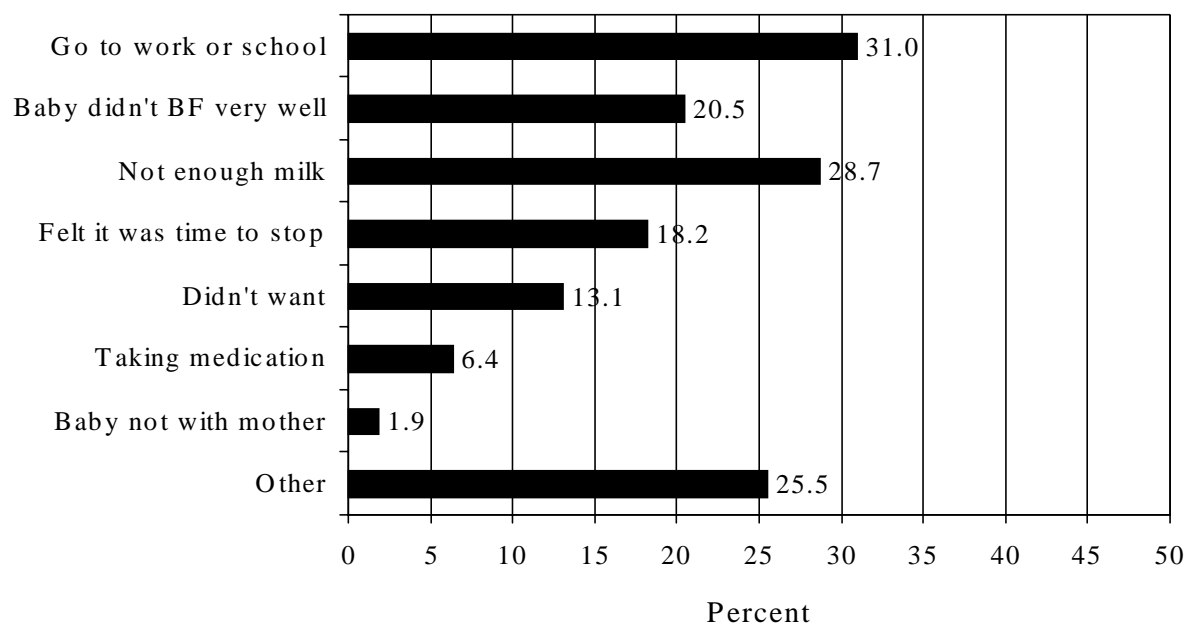
The proportion of respondents who indicated that they breastfed their newborns also increased with the mother's education level (Figure 29, Table 15 in Appendix II).

FIGURE 29
Percentages of Mothers Who Ever Breastfed by Mother's Education Level
1999 Michigan PRAMS



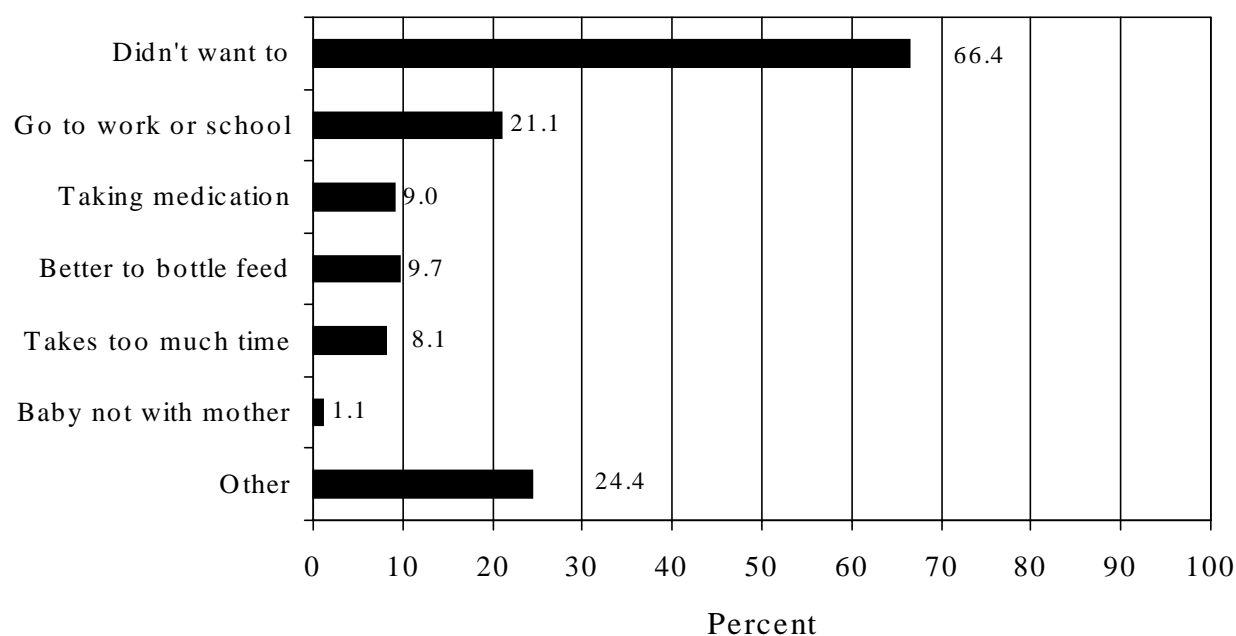
Among respondents who had breastfed their newborns and had stopped breastfeeding at the time of the survey, the top three reasons for stopping breastfeeding were: the mother had to go to work or school (31.0 %, 95% CI \pm 5.2); the baby didn't breastfeed very well (20.5%, 95% CI \pm 4.8); and the mother did not have enough milk (28.7%, 95% CI \pm 5.3) (Figure 30, Table 16 in Appendix II).

FIGURE 30
Reasons for Stopping Breastfeeding (%)
1999 Michigan PRAMS



Among respondents who did not breastfeed their newborn at any time, (66.4%, 95% CI \pm 6.1) reported that they did not want to breastfeed (Figure 31, Table 17 in Appendix II).

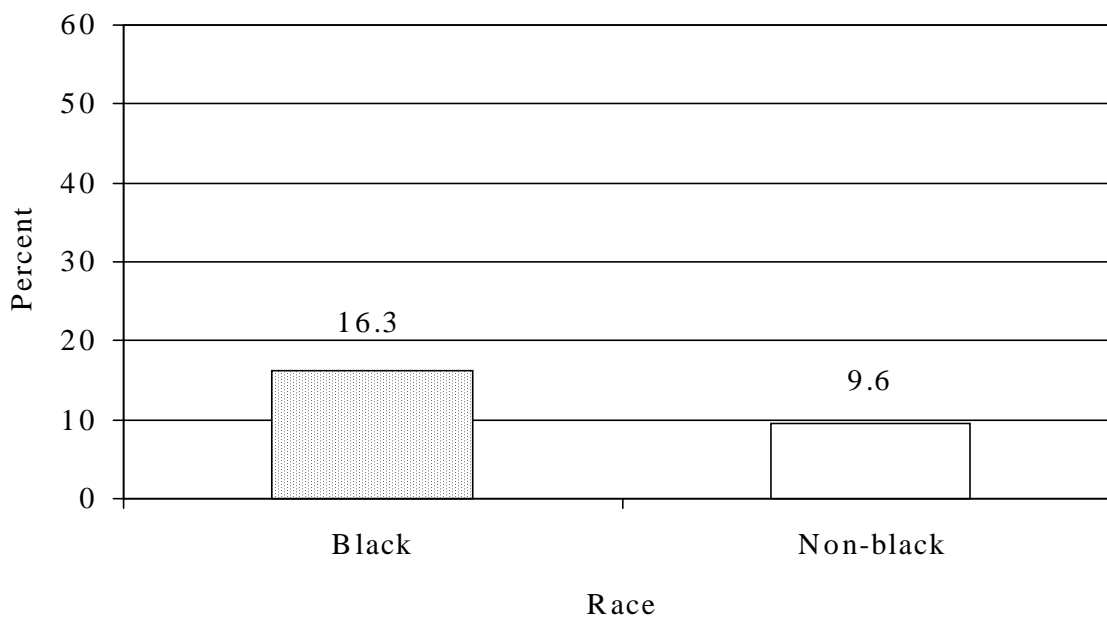
FIGURE 31
Reasons for Not Breastfeeding (%)
1999 Michigan PRAMS



Infants in Intensive Care

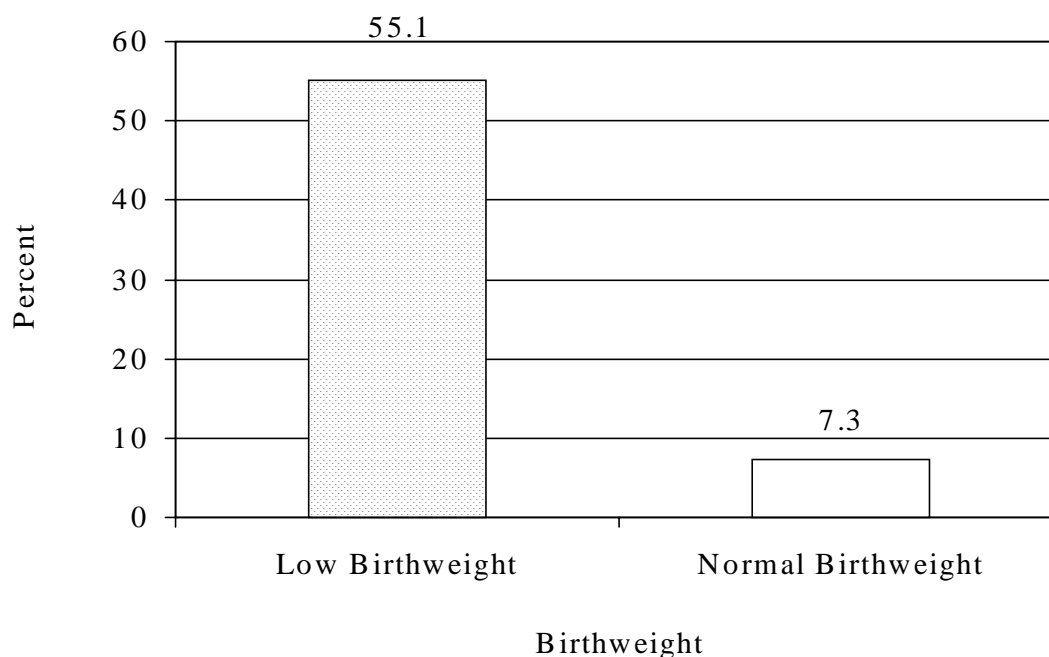
Nearly one in 10 (10.6%, 95% CI ± 1.8) respondents indicated that their infant was placed in an intensive care unit following delivery. Infants born to black respondents (16.3%, 95% CI ± 2.7) were more likely to be placed in an intensive care unit compared to infants born to non-black respondents (9.6%, 95% CI ± 2.1) (Figure 32, Table 21 in Appendix II).

FIGURE 32
Percentage of Infants Placed in Intensive Care Unit Following Delivery
By Mother's Race
1999 Michigan PRAMS



Among normal birthweight infants, 7.3 percent (95% CI \pm 1.9) were placed in an intensive care unit following delivery and 55.1 percent (95% CI \pm 3.8) of low birthweight infants were placed in an intensive care unit following delivery. (Figure 33, Table 21 in Appendix II).

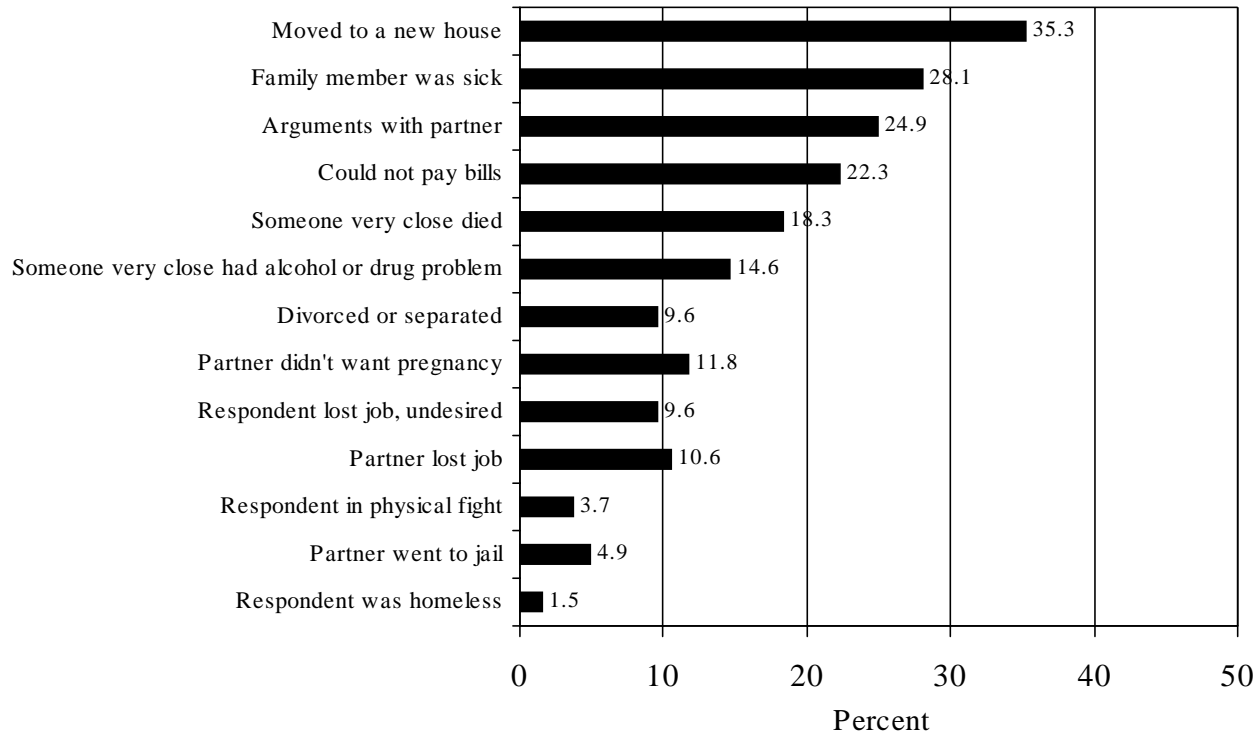
FIGURE 33
Percentage of Infants Placed in Intensive Care Unit Following Delivery
By Infant's Birthweight
1999 Michigan PRAMS



Stressors in the Year Prior to Delivery

Respondents were asked to select the stressors (from a list of 13) that they had experienced during the year prior to delivery. Nearly three-quarters of the respondents (71.8%, 95% CI ± 3.2) (See Table 22A in Appendix II) experienced at least one of the stressors listed, and 19.1 percent (95% CI ± 2.7) selected four or more stressors (See Table 22 in Appendix II). The stressors most commonly reported by respondents included moving to a new residence, having had a sick family member, and arguing with one's partner (Figure 34, Table 23 in Appendix II).

FIGURE 34
Types of Stressors Respondents Encountered
During the Year Prior to Delivery (%)
1999 Michigan PRAMS

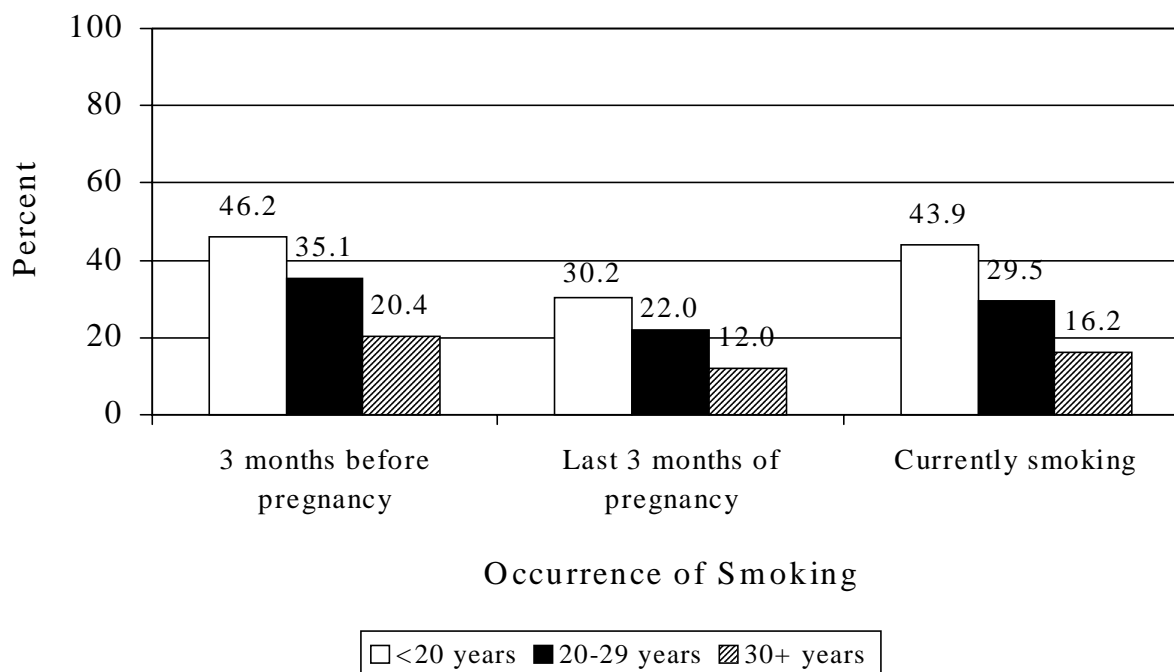


Cigarette Smoking

Respondents were asked whether they smoked cigarettes during the three-month period before they became pregnant, during the last three months of pregnancy, and during the three-month period immediately following delivery. Overall, 30.5 percent (95% CI ± 3.4) of respondents smoked during the three-month period preceding pregnancy, 19.1 percent (95% CI ± 3.0) smoked during the last three months of pregnancy, and 25.9 percent (95% CI ± 3.3) smoked during the three month period following delivery (see Table 24 in Appendix II).

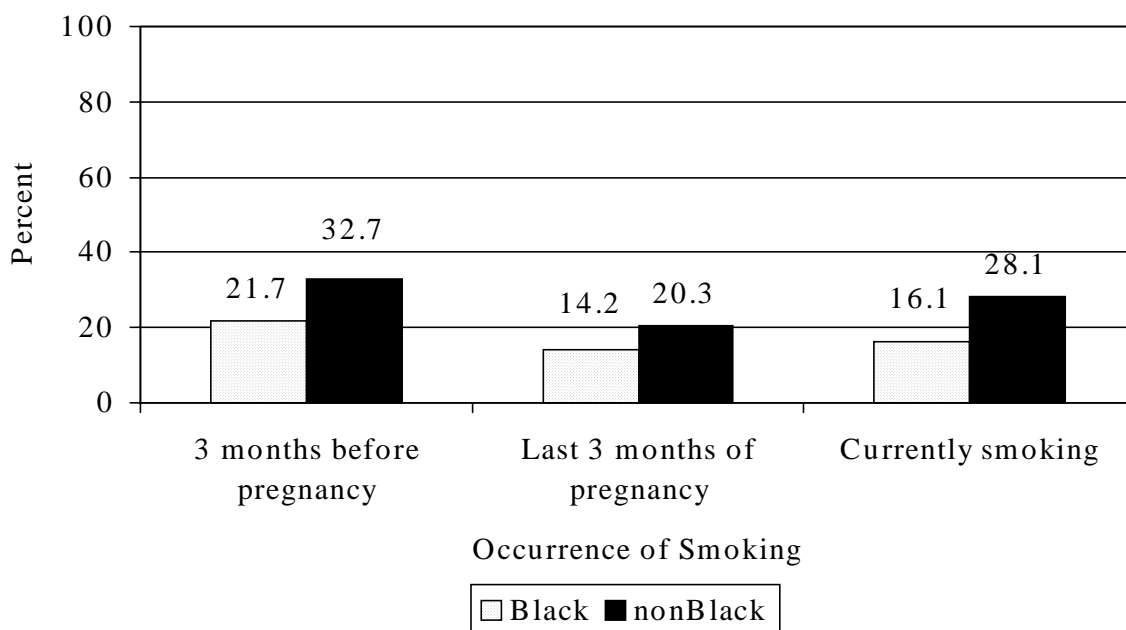
A smaller proportion of respondents aged 30 and older reported smoking at each of the three periods surrounding pregnancy compared with younger respondents (Figure 35, Table 24 in Appendix II).

FIGURE 35
Percentage of Mothers Who Smoked by Mother's Age:
Before, During and After Pregnancy
1999 Michigan PRAMS



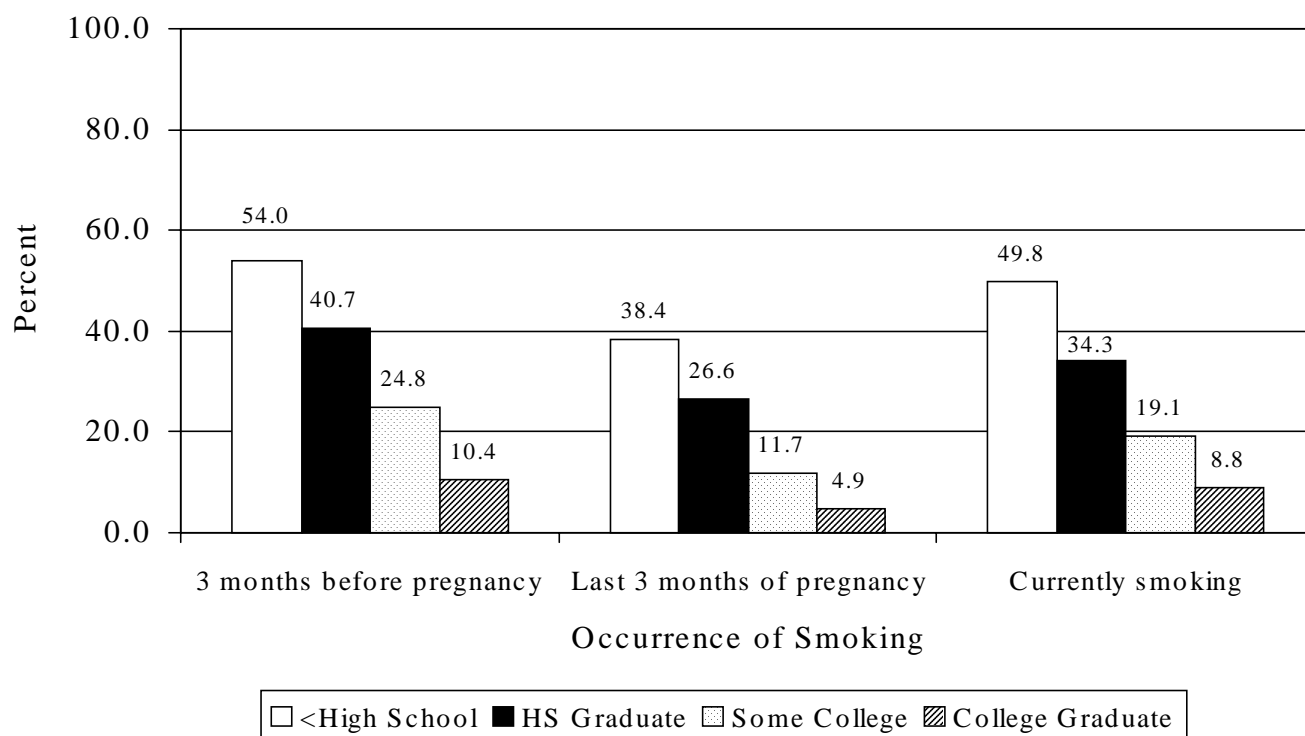
Black respondents were less likely to have reported smoking during any of the three periods surrounding pregnancy compared with non-black respondents (Figure 36, Table 24 in Appendix II).

FIGURE 36
Percentage of Mothers Who Smoked by Mother's Race:
Before, During and After Pregnancy
1999 Michigan PRAMS



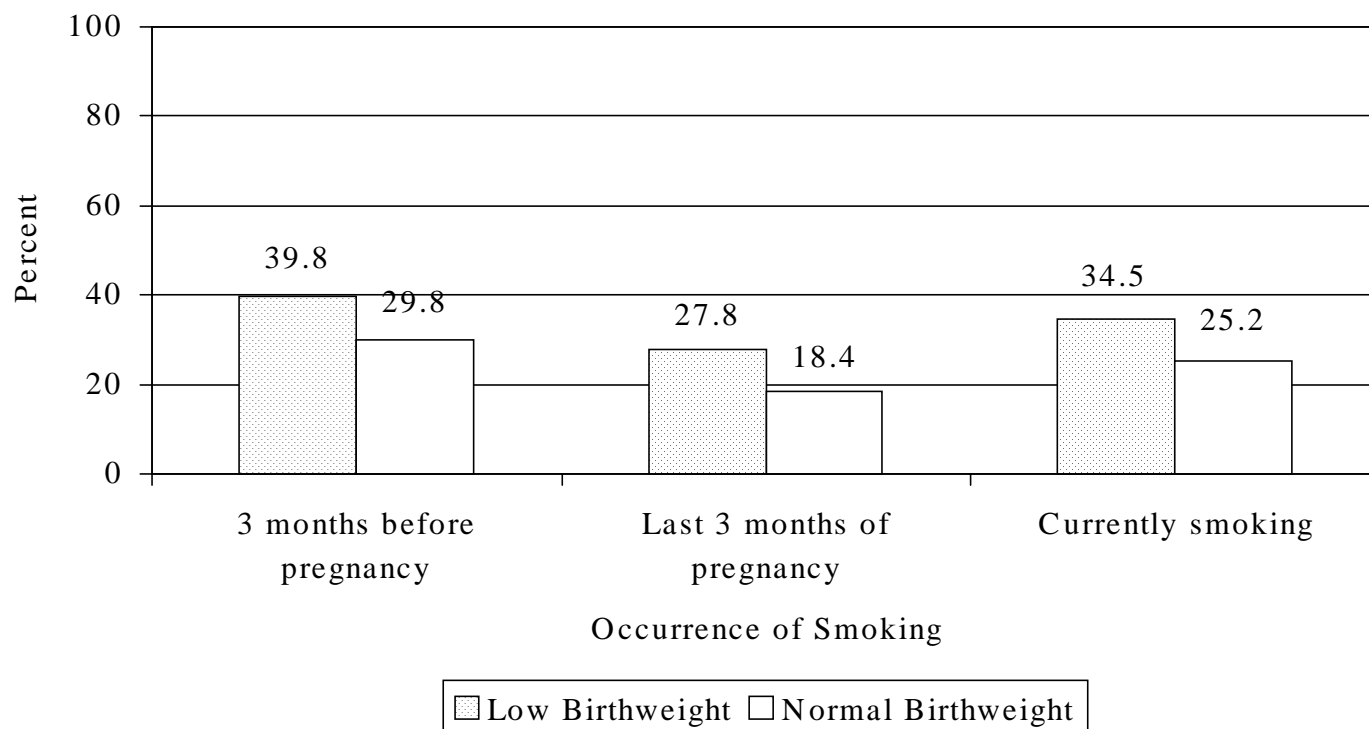
At each of the time periods surrounding pregnancy, education was negatively correlated with cigarette smoking (Figure 37, Table 24 in Appendix II).

FIGURE 37
Percentage of Mothers Who Smoked by Mother's Education Level:
Before, During and After Pregnancy
1999 Michigan PRAMS



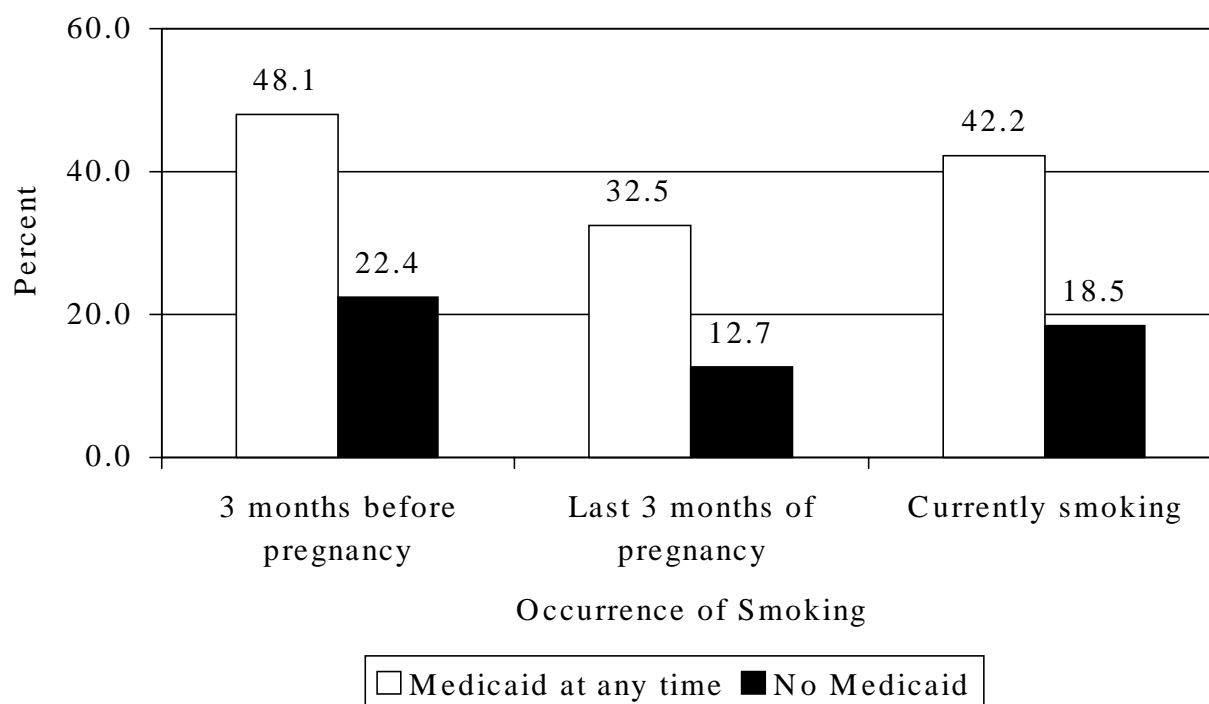
At each time period surrounding pregnancy, respondents with low birthweight infants were also more likely to have smoked compared with respondents with normal birthweight infants (Figure 38, Table 24 in Appendix II).

FIGURE 38
Percentage of Mothers Who Smoked by Infant's Birthweight:
Before, During and After Pregnancy
1999 Michigan PRAMS



A higher proportion of respondents with Medicaid coverage at any time (i.e., Medicaid before pregnancy, Medicaid paid for prenatal care, or Medicaid paid for delivery) reported smoking at each time point compared to respondents who were not receiving Medicaid coverage at any time (Figure 39, Table 24 in Appendix II).

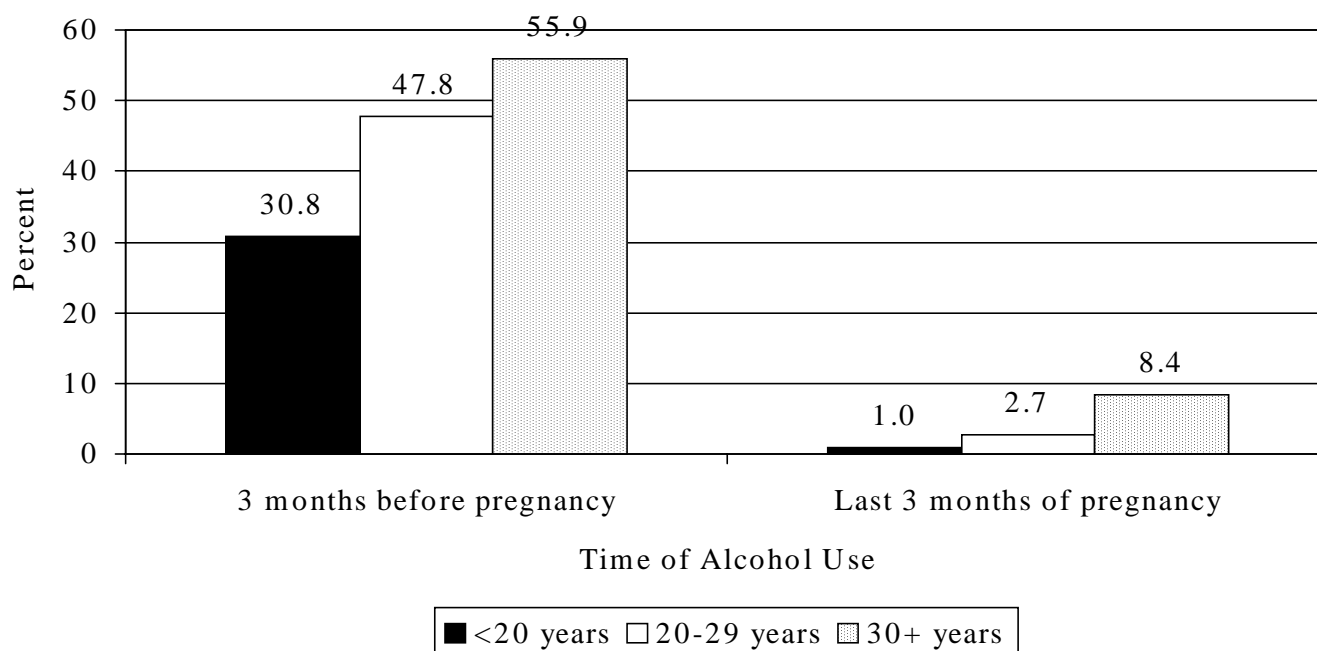
FIGURE 39
Percentage of Mothers Who Smoked by Medicaid Status:
Before, During and After Pregnancy
1999 Michigan PRAMS



Alcohol Consumption

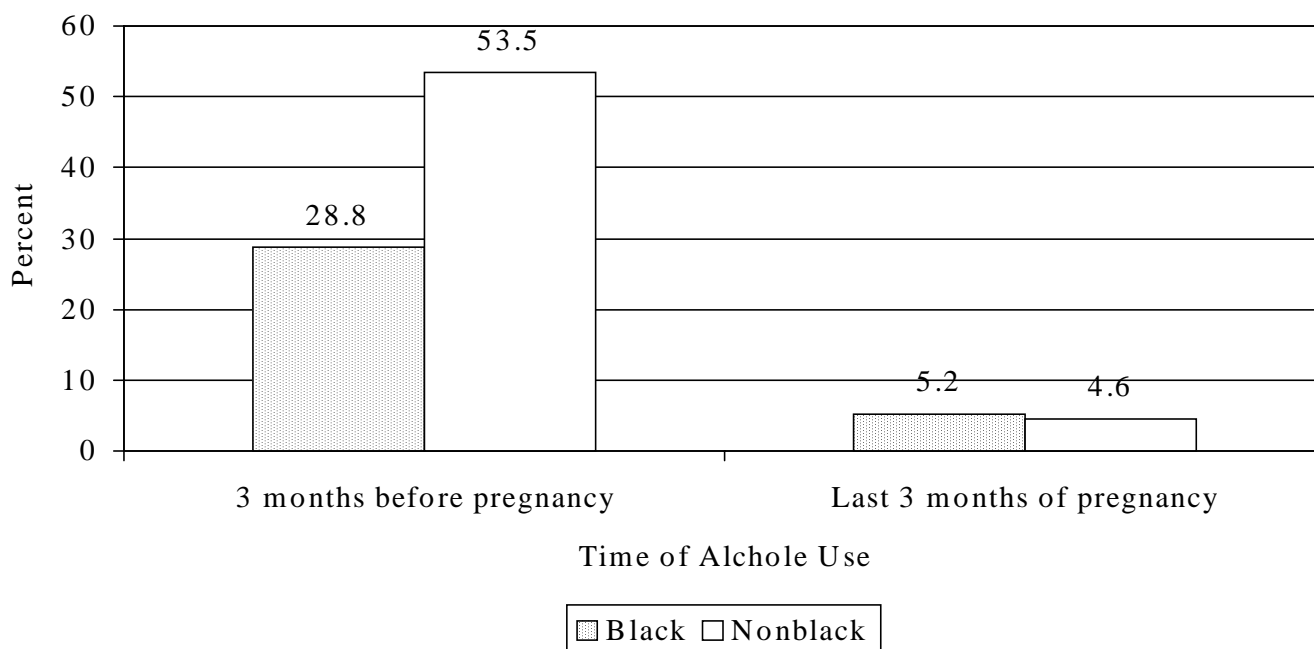
Respondents were asked whether or not they had consumed alcohol during the three-month period prior to becoming pregnant and during the last three months prior to delivery. Half of all respondents (49.1%, 95% CI ± 3.5) reported drinking alcohol during the three-month period preceding pregnancy, while 4.7 percent (95% CI ± 1.4) reported drinking alcohol during the last three months preceding delivery. These indicators were related to age. Women over the age of 19, and women 30 and over were more likely to drink alcohol in the three months prior to pregnancy, compared to teenaged respondents. (Figure 40, Table 25 in Appendix II).

FIGURE 40
Percentage of Mothers Who Consumed Alcohol by Mother's Age:
Before and During Pregnancy
1999 Michigan PRAMS



Non-black women were almost twice as likely to drink alcohol three months prior to pregnancy than were black respondents (Figure 41, Table 25 in Appendix II).

FIGURE 41
Percentage of Mothers Who Consumed Alcohol by Mother's Race:
Before and During Pregnancy
1999 Michigan PRAMS



APPENDIX I. METHODOLOGY

Survey Protocol, Sample, and Instrument

The data collection for the 1999 Michigan Pregnancy Risk Assessment Monitoring System (PRAMS) was conducted by the Michigan Department of Community Health. Software designed under the supervision of the Centers for Disease Control and Prevention (C.D.C.) was used to manage the 1999 sample, enforce the protocols, and enter the data.

There are two main components to the data collection for Michigan PRAMS. In the mail and phone component, the data collection methods used are standardized protocols used by CDC. A stratified systematic sample of approximately 200 new mothers is selected monthly from a frame of eligible birth certificates. Each sampled mother is mailed a letter of explanation, a 12-page survey, and an incentive two to six months after the birth of her child. A reminder letter, a second, and a third package are sent to those who do not respond. In addition, telephone calls are made to mothers who do not respond to the survey.

In the hospital component of data collection, at least 400 black mothers are sampled from hospital delivery logs per year, over 26 time points. Interviews are attempted before the mother leaves the hospital following delivery. A second mailed questionnaire follows two to six months after the in-hospital interview, which focuses on post-partum experiences. In 1999, five urban hospitals in Michigan participated in the PRAMS project (Hurley Medical Center, Hutzel Hospital, Sinai Hospital, Grace Hospital, and Riverview Hospital). The CDC methodology for PRAMS used by other states does not include the hospital component. This component is important for Michigan, however, because it allows oversampling of black women who are difficult to access via mailed surveys.

A total of 2,763 women were selected by the sampling frame to be eligible to participate in the study, and 1,849 women actually participated in the study. The demographic characteristics of the sample in this survey are presented in Table 1 in Appendix II.

The 1999 survey instrument included questions developed for PRAMS by the Centers for Disease Control and Prevention, as well as state-added questions. The survey instrument included questions on previous pregnancy, intendedness of pregnancy, health insurance, prenatal care, satisfaction with prenatal care, alcohol and tobacco use, major life stressors during pregnancy, physical abuse, hospital stays (pre-delivery and delivery), breastfeeding, second-hand smoke contact for infant, sleep position of infant, routine well baby care, income sources, resources needed, and resources accessed. Topics of particular interest were selected from the survey to include in this report.

Unless otherwise noted, respondents who refused to answer or who answered that they did not know were not included in the calculation of percentages of the population considered to have a certain characteristic or behavior. Sample sizes for each estimate varied and are reflected in the 95 percent confidence interval limits presented with each estimate.

As with all survey estimates, these estimates are subject to sampling error. The confidence intervals presented are an attempt to quantify this sampling error and to clarify the degree of confidence in the estimates presented.

Weighting and Interpretation of the Results

The 1999 Michigan PRAMS data was weighted by the Food and Nutrition Database Research Center at Michigan State University. There were three weighting components, which adjusted for the sample design, nonresponse, and omissions from the sampling frame. For the nonresponse step, development of the weight involved identifying, within each stratum, factors that are associated with response. These factors were age, education, and marital status. The stratum in the survey were race (black and non-black) and birthweight (low and normal). The weighting procedure results in estimates that are reflective of the characteristics and behaviors of women in Michigan in 1999 who had a live birth.

In 1999 the total response rate statewide was 67 percent. The response rates for each of the four stratum were as follows:

<u>Stratum</u>	
LBW, black	58.6%
LBW, non-black	65.9%
NBW, black	71.9%
NBW, non-black	72.9%

When the total response rate in any of the strata is less than 70 percent, the interpretation of the results for that stratum must be viewed with caution.

APPENDIX II. TABLES OF RESULTS

Table 1
Percentage of mothers demographic characteristics
1999 Michigan PRAMS

	Sample n	Estimated N	Percent
Total	1,832	129,762	100.0
Age			
≤19 years	250	14,379	11.0
20-29 years	967	65,760	50.7
30+ years	615	49,624	38.2
Race			
Black	958	23,363	18.1
Non-black	875	105,767	81.9
Education			
<H.S. Graduate	380	22,410	17.6
H.S. Graduate	603	39,104	30.7
Some College	469	30,685	24.1
College Graduate	357	35,015	27.5
Marital Status			
Married	918	87,531	67.3
Other	926	42,467	32.7
Medicaid			
Medicaid at any time ¹	835	41,881	32.2
Before pregnancy	434	16,404	12.7
PNC payment	706	36,844	28.9
Delivery payment	658	36,944	29.3
No Medicaid at anytime	1,009	88,117	67.8

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 2
Prevalence of low and normal birthweight by demographic characteristics
1999 Michigan PRAMS

	Low Birthweight Infants					Normal Birthweight Infants				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	836	9,245	7.1	± 0.2		983	120,285	92.9	± 0.2	
Age										
≤19 years	126	1,316	9.2	± 2.6		122	13,007	90.8	± 2.6	
20-29 years	436	4,831	7.4	± 0.7		525	60,847	92.6	± 0.7	
30+ years	274	3,097	6.3	± 0.8		336	46,431	93.8	± 0.8	
Race										
Black	476	3,173	13.6	± 0.3		475	20,105	86.4	± 0.3	
Non-black	359	6,033	5.7	± 0.2		509	99,628	94.3	± 0.2	
Education										
<H.S. Graduate	200	2,084	9.3	± 2.2		178	20,296	90.7	± 2.2	
H.S. Graduate	287	3,495	9.0	± 1.2		311	35,525	91.0	± 1.2	
Some College	202	1,896	6.2	± 1.0		263	28,738	93.8	± 1.0	
College Graduate	136	1,614	4.6	± 0.8		220	33,396	95.4	± 0.8	
Marital Status										
Married	360	4,779	5.5	± 0.4		552	82,618	94.5	± 0.4	
Other	481	4,498	10.6	± 1.4		434	37,792	89.4	± 1.4	

Table 3
Prevalence of pregnancies by intendedness of pregnancy
1999 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Total	1,705	119,707	100	
Intendedness of pregnancy				
Wanted to become pregnant sooner	241	21,947	18.3	± 2.9
Wanted to become pregnant later	611	36,771	30.7	± 3.4
Became pregnant when wanted	588	49,129	41.0	± 3.6
Did not want to become pregnant	265	11,861	9.9	± 2.0

Table 4
Prevalence of intended and unintended pregnancies by demographic characteristics
1999 Michigan PRAMS

	Intended					Unintended				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	749	68,891	60.2	± 3.7		718	45,504	39.8	± 3.7	
Age										
≤19 years	26	1,755	13.9	± 9.6		157	10,848	86.1	± 9.6	
20-29 years	385	34,120	59.0	± 5.0		399	23,748	41.0	± 5.0	
30+ years	338	33,016	75.2	± 5.2		162	10,907	24.8	± 5.2	
Race										
Black	225	5,552	32.1	± 4.4		455	11,742	67.9	± 4.4	
Non-black	521	62,682	65.0	± 4.3		267	33,793	35.0	± 4.3	
Education										
<H.S. Graduate	58	4,904	28.7	± 11.5		190	12,165	71.3	± 11.5	
H.S. Graduate	225	18,016	52.5	± 6.4		264	16,286	47.5	± 6.4	
Some College	200	16,626	61.4	± 7.0		181	10,437	38.6	± 7.0	
College Graduate	256	27,713	82.7	± 5.0		77	5,802	17.3	± 5.0	
Marital Status										
Married	567	59,851	74.2	± 3.9		238	20,831	25.8	± 3.9	
Other	185	9,107	26.8	± 6.2		488	24,836	73.2	± 6.2	
Infant's Birthweight										
Low	323	4,094	55.1	± 4.0		324	3,333	44.9	± 4.0	
Normal	428	64,858	60.7	± 3.9		389	42,050	39.3	± 3.9	
Medicaid										
Medicaid at any time ¹	184	11,438	33.5	± 6.7		426	22,759	66.6	± 6.7	
Before pregnancy	74	3,766	29.7	± 10.3		219	8,938	70.4	± 10.3	
No Medicaid at any time	568	57,520	71.5	± 4.0		300	230	28.5	± 4.0	

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 5

Prevalence of birth control use among women not intending pregnancy
1999 Michigan PRAMS

	Birth Control Use (Not Intending)				
	Sample n	Estimated N	Percent	95% CI	
Total	290	17,918	40.0	±	5.9
Age					
≤19 years	65	4,495	43.1	±	14.4
20-29 years	155	8,332	35.4	±	7.4
30+ years	70	5,091	46.7	±	11.9
Race					
Black	194	5,293	45.2	±	5.7
Non-black	99	12,664	38.2	±	7.8
Education					
<H.S. Graduate	79	5,737	48.8	±	14.4
H.S. Graduate	102	5,795	35.6	±	8.5
Some College	79	4,198	41.0	±	11.0
College Graduate	31	1,990	34.4	±	14.7
Marital Status					
Married	82	7,386	35.8	±	8.5
Other	213	10,623	43.5	±	8.1
Infant's Birthweight					
Low	132	1,320	40.4	±	5.8
Normal	161	16,634	40.1	±	6.4
Medicaid					
Medicaid at any time ¹	187	9,312	41.8	±	8.3
Before pregnancy	84	3,679	41.3	±	12.3
No Medicaid at any time	108	8,696	38.3	±	8.4

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 5A

Use of birth control at the time pregnancy occurred among women
1999 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI	
Birth control use					
Yes	456	26,271	20.6	±	2.9
No	1364	101,468	79.4	±	2.9

Table 6
Prenatal care started by demographic characteristics
1999 Michigan PRAMS

	First Trimester					Second Trimester				
	Sample n	Estimated N	Percent	±	95% CI	Sample n	Estimated N	Percent	±	95% CI
Total	1,355	106,208	85.8	±	2.5	260	14,588	11.8	±	2.3
Age										
≤19 years	150	9,720	74.1	±	10.7	54	2,587	19.7	±	9.6
20-29 years	708	53,910	84.8	±	3.4	149	8,018	12.6	±	3.2
30+ years	497	42,578	90.5	±	3.4	57	3,983	8.5	±	3.3
Race										
Black	604	15,401	71.6	±	3.7	181	4,465	20.8	±	3.3
Non-black	748	90,771	88.8	±	2.9	78	10,112	9.9	±	2.7
Education										
<H.S. Graduate	222	15,176	71.4	±	9.4	88	4,597	21.6	±	8.5
H.S. Graduate	431	31,350	83.7	±	4.1	96	5,154	12.8	±	4.0
Some College	361	26,412	88.8	±	4.0	60	3,074	10.3	±	3.9
College Graduate	330	32,266	94.2	±	3.2	15	1,752	5.1	±	3.0
Marital Status										
Married	792	76,531	91.2	±	2.6	65	6,747	8.0	±	2.5
Other	563	29,677	74.3	±	5.3	195	7,841	19.6	±	4.8
Infant's Birthweight										
Low	585	6,904	79.6	±	2.8	122	1,211	14.0	±	2.5
Normal	767	99,282	86.4	±	2.6	138	13,377	11.6	±	2.5
Medicaid Paid PNC										
Yes	453	27,761	78.3	±	5.1	166	6,689	18.9	±	5.0
No	890	77,072	89.5	±	2.8	90	7,760	9.0	±	2.6

Table 6, cont.
Prenatal care started by demographic characteristics
1999 Michigan PRAMS

	Third Trimester					No Prenatal Care				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	48	1,735	1.4	± 0.8		97	3,290	1.0	± 0.6	
Age										
≤19 years	10	225	1.7	± 1.4		25	1,518	4.5	± 5.6	
20-29 years	28	1,140	1.8	± 1.4		48	1,140	0.8	± 0.4	
30+ years	10	370	0.8	± 0.8		24	612	0.3	± 0.2	
Race										
Black	36	785	3.7	± 1.5		85	1,524	4.0	± 1.5	
Non-black	10	870	0.9	± 0.9		20	1,876	0.5	± 0.7	
Education										
<H.S. Graduate	19	750	3.5	± 3.6		36	1,485	3.4	± 3.5	
H.S. Graduate	17	595	1.6	± 1.1		41	1,169	1.0	± 0.6	
Some College	8	122	0.4	± 0.4		19	387	0.4	± 0.3	
College Graduate	1	181	0.5	± 1.0		2	57	0.1	± 0.2	
Marital Status										
Married	8	468	0.6	± 0.6		21	878	0.2	± 0.2	
Other	40	1,268	3.2	± 2.0		85	2,563	3.0	± 2.0	
Infant's Birthweight										
Low	27	264	3.0	± 1.3		66	538	3.4	± 1.0	
Normal	18	1,381	1.2	± 0.8		30	2,709	0.8	± 0.7	
Medicaid Paid PNC										
Yes	29	626	1.8	± 0.8		41	1,140	1.1	± 0.6	
No	15	1,025	1.2	± 1.1		39	1,576	0.3	± 0.2	

Table 6A (Fig 19)
Trimester when prenatal care started by source of PNC payments
1999 Michigan PRAMS

	Medicaid				Insurance			
	Sample n	Estimated N	Percent	95% CI	Sample n	Estimated N	Percent	95% CI
1st trimester	453	27,761	78.3	± 5.1	876	77,878	90.2	± 2.5
2nd trimester	166	6,689	18.9	± 5.0	76	7,086	8.2	± 2.5
3rd trimester	29	626	1.8	± 0.8	11	266	0.3	± 0.2
no care	41	1,141	1.1	± 0.6	27	1,084	1.3	± 0.8

Table 7
Prevalence of starting prenatal care as early as mother desired by demographic characteristics
1999 Michigan PRAMS

	Prenatal Care as Early as Mother Desired					No Early Prenatal Care as Mother Desired				
	Sample n	Estimated N	Percent	±	95% CI	Sample n	Estimated N	Percent	±	95% CI
Total	1,416	103,697	82.5	±	2.7	345	21,722	17.3	±	2.7
Age										
≤19 years	151	9,448	70.3	±	10.8	84	3,966	29.5	±	10.8
20-29 years	760	53,298	82.9	±	3.7	177	10,802	16.8	±	3.7
30+ years	505	40,951	85.4	±	4.1	84	6,954	14.5	±	4.1
Race										
Black	707	17,486	76.8	±	3.4	203	5,019	22.1	±	3.4
Non-black	707	85,514	83.6	±	3.3	145	16,768	16.4	±	3.3
Education										
<H.S. Graduate	245	14,767	71.5	±	9.5	109	5,747	27.8	±	9.5
H.S. Graduate	456	30,215	79.1	±	4.8	123	7,955	20.8	±	4.8
Some College	384	26,164	86.0	±	4.5	73	4,156	13.7	±	4.5
College Graduate	315	30,248	89.2	±	4.2	35	3,666	10.8	±	4.2
Marital Status										
Married	773	73,523	86.9	±	2.9	115	11,019	13	±	2.9
Other	652	30,346	73.6	±	5.5	233	10,789	26.1	±	5.5
Infant's Birthweight										
Low	625	6,950	77.7	±	3.1	173	1,925	21.5	±	3.1
Normal	787	96,658	82.9	±	2.9	171	19,812	17	±	2.9
Medicaid Paid PNC										
Yes	527	28,208	76.7	±	5.5	175	8,546	23.2	±	5.5
No	898	75,661	85.2	±	3.1	163	13,081	14.7	±	3.1

Table 7, cont.

Prevalence of starting prenatal care as early as mother desired by demographic characteristics
1999 Michigan PRAMS

	Did not Want Prenatal Care				
	Sample n	Estimated N	Percent	95% CI	
Total	14	259	0.2	±	0.1
Age					
≤19 years	3	22	0.2	±	0.2
20-29 years	6	200	0.3	±	0.3
30+ years	5	38	0.1	±	0.1
Race					
Black	14	259	1.1	±	0.7
Non-black	0	0	0.0	±	0.0
Education					
<H.S. Graduate	8	144	0.7	±	0.6
H.S. Graduate	2	14	0.04	±	0.0
Some College	4	101	0.3	±	0.4
College Graduate	0	0	0.0	±	0.0
Marital Status					
Married	6	115	0.1	±	0.1
Other	8	145	0.4	±	0.3
Infant's Birthweight					
Low	9	68	0.8	±	0.5
Normal	5	192	0.2	±	0.1
Medicaid Paid PNC					
Yes	1	42	0.1	±	0.2
No	2	49	0.1	±	0.1

Table 8

Reasons for not getting prenatal care as early as mother desired
1999 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI	
Reason for No Prenatal Care					
Could Not Get Earlier Appointment	92	7,761	32.8	±	8.0
Didn't Know I Was Pregnant	125	7,224	30.5	±	7.7
Lack of Money or Insurance	77	4,444	18.8	±	6.5
Too Many Other Things Going On	20	909	3.8	±	2.4
Couldn't Find Doctor to Take Me as a Patient	17	803	3.4	±	3.4
No Transportation	17	733	3.1	±	2.3
Couldn't Get Child care for Other Children	11	477	2.0	±	2.1
Other	63	4,288	18.1	±	6.3

Table 9
Source of payment for prenatal care
1999 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Source of Payment				
Private Health Insurance	1,036	89,449	70.2 ±	3.2
Medicaid	706	36,844	28.9 ±	3.2
Personal Income	175	16,473	12.9 ±	2.5
MICH CARE	23	1,289	1.0 ±	0.6
Free Care	14	616	0.5 ±	0.6
Other	47	1,860	1.5 ±	0.8

Table 10
Prevalence of mothers with health insurance or Medicaid as source
of prenatal care payment by demographic characteristics
1999 Michigan PRAMS

	Private Health Insurance for PNC					Medicaid Coverage for PNC				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	1,032	89,369	70.2 ±	3.2		699	36,659	28.8 ±	3.2	
Age										
≤19 years	74	4,097	29.8 ±	10.9		150	9,661	70.1 ±	10.7	
20-29 years	496	42,627	65.8 ±	4.5		433	21,759	33.6 ±	4.5	
30+ years	462	42,645	87.6 ±	3.4		116	5,239	10.8 ±	3.2	
Race										
Black	370	9,522	42.2 ±	4.0		512	12,715	56.3 ±	4.0	
Non-black	658	79,123	76.0 ±	3.9		191	24,066	23.1 ±	3.8	
Education										
<H.S. Graduate	75	5,985	28.7 ±	10.2		265	14,234	68.2 ±	10.4	
H.S. Graduate	281	23,421	60.9 ±	5.7		278	15,041	39.1 ±	5.7	
Some College	327	24,781	81.0 ±	4.8		135	6,373	20.8 ±	5.1	
College Graduate	330	32,873	94.4 ±	3.0		18	847	2.4 ±	1.8	
Marital Status										
Married	768	75,304	87.5 ±	3.0		121	10,369	12.1 ±	2.9	
Other	268	14,145	34.1 ±	5.9		585	26,475	63.9 ±	6.0	
Infant's Birthweight										
Low	429	5,225	58.1 ±	3.5		340	3,340	37.1 ±	3.4	
Normal	599	84,077	71.1 ±	3.5		358	33,350	28.2 ±	3.4	

Table 11
Prevalence of infant's birthweight by source of prenatal care payment
1999 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI	
Source of Payment					
Medicaid					
Total	698	36,690	100		
Low Birthweight	340	3,340	9.1	±	1.3
Normal Birthweight	358	33,350	90.9	±	1.3
Private Health Insurance					
Total	1,028	89,303	100		
Low Birthweight	429	5,225	5.9	±	0.4
Normal Birthweight	599	84,077	94.2	±	0.4
Personal Income					
Total	175	16,473	100		
Low Birthweight	76	924	5.6	±	1.6
Normal Birthweight	99	15,548	94.4	±	1.6
MICHCARE					
Total	22	1,288	100		
Low Birthweight	8	108	8.4	±	7.6
Normal Birthweight	14	1,180	91.6	±	7.6
Free Care					
Total	14	616	100		
Low Birthweight	10	90	14.6	±	19.8
Normal Birthweight	4	526	85.4	±	19.7
Other					
Total	46	1,859	100		
Low Birthweight	28	263	14.2	±	9.4
Normal Birthweight	18	1,596	85.8	±	9.4

Table 12
Place where prenatal care was received by demographic characteristics
1999 Michigan PRAMS

	Hospital/Clinic					Health Department				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	479	18,534	14.6	± 2.2		71	2,962	2.3	± 0.8	
Age										
≤19 years	103	3,895	28.3	± 9.7		22	1,106	8.0	± 4.5	
20-29 years	263	10,908	16.8	± 3.1		40	1,448	2.2	± 1.0	
30+ years	113	3,732	7.7	± 2.4		9	408	0.8	± 0.8	
Race										
Black	398	9,167	40.6	± 3.9		60	1,923	8.5	± 2.4	
Non-black	86	9,469	9.1	± 2.4		10	998	1.0	± 0.8	
Infant's Birthweight										
Low	238	2,044	22.7	± 2.7		27	240	2.7	± 1.0	
Normal	245	16,585	14.0	± 2.4		42	2,666	2.3	± 0.8	
	Doctor's Office, HMO,PPO					Other				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	1,062	93,111	73.2	± 3.0		96	8,093	6.4	± 2.0	
Age										
≤19 years	73	5,220	37.9	± 12.1		25	2,180	15.8	± 9.9	
20-29 years	559	46,362	71.5	± 4.1		53	4,643	7.2	± 2.9	
30+ years	430	41,530	85.3	± 3.5		18	1,270	2.6	± 1.8	
Race										
Black	379	9,510	42.1	± 4.0		48	1,539	6.8	± 2.2	
Non-black	680	82,913	79.7	± 3.5		49	6,561	6.3	± 2.4	
Infant's Birthweight										
Low	452	5,560	61.8	± 3.4		43	573	6.4	± 2.0	
Normal	603	87,445	74.0	± 3.2		54	7,527	6.4	± 2.2	

Table 13

Topics addressed by health care professional during prenatal care
1999 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Medication Use	1,576	115,147	92.1 ±	1.9
Early Labor	1,526	110,633	88.7 ±	2.4
Nutrition	1,451	107,069	85.6 ±	2.5
Baby's Development	1,522	109,568	88.0 ±	2.3
Testing for HIV	1,111	67,164	85.0 ±	3.6
Alcohol use	1,510	105,699	84.6 ±	2.5
Smoking	1,489	102,185	81.9 ±	2.7
Breast Feeding	1,445	103,479	82.8 ±	2.7
Birth Control	1,405	103,502	83.0 ±	2.7
Illegal Drugs	1,373	92,232	74.3 ±	3.1
Preventing HIV	1,501	106,249	54.0 ±	2.5
Seatbelt Use	1,002	69,109	55.3 ±	3.6
Physical Abuse	755	45,867	36.9 ±	3.5

Table 14
Topics addressed by health care professional during prenatal care by Medicaid-paid-for PNC
1999 Michigan PRAMS

	Medicaid Paid					No Medicaid				
	Sample n	Estimated	Percent	95% CI		Sample n	Estimated	Percent	95% CI	
Medication Use	607	32,519	88.8	± 4.3		969	82,628	93.4	± 2.1	
Early Labor	607	31,274	85.5	± 5.3		919	79,360	90.1	± 2.5	
Nutrition	555	30,551	83.3	± 4.9		896	76,518	86.5	± 2.8	
Baby's Development	600	31,488	86.9	± 4.5		922	78,079	88.4	± 2.6	
Testing for HIV	622	32,379	88.4	± 4.3		879	73,870	83.5	± 3.1	
Alcohol Use	619	32,600	89.0	± 4.0		891	73,099	82.8	± 3.2	
Smoking	621	32,720	89.9	± 4.0		868	69,465	78.7	± 3.5	
Breast Feeding	582	31,383	85.7	± 4.6		863	72,096	81.7	± 3.3	
Birth Control	574	30,778	84.1	± 5.2		831	72,724	82.5	± 3.2	
Illegal Drugs	598	30,813	84.6	± 4.8		775	61,420	70.0	± 3.9	
Preventing HIV	533	25,451	69.9	± 6.3		578	41,713	47.4	± 4.3	
Seatbelt Use	390	18,861	51.5	± 6.7		612	50,248	56.9	± 4.2	
Physical Abuse	395	18,755	51.2	± 6.7		360	27,111	30.9	± 3.9	

Table 15
Prevalence of ever breastfed by demographic characteristics
1999 Michigan PRAMS

	Ever Breast Fed				
	Sample n	Estimated N	Percent	95% CI	
Total	872	79,418	66.9	±	3.5
Age					
≤19 years	75	6,188	51.3	±	13.2
20-29 years	444	37,273	61.2	±	5.1
30+ years	353	35,957	77.9	±	4.8
Race					
Black	325	8,847	49.5	±	4.6
Non-black	546	70,201	70.0	±	4.1
Education					
<H.S. Graduate	93	8,350	43.7	±	11.7
H.S. Graduate	240	20,089	56.4	±	6.3
Some College	257	20,727	74.2	±	6.1
College Graduate	273	28,748	85.0	±	4.9
Marital Status					
Married	591	61,978	74.9	±	3.9
Other	287	17,564	48.5	±	6.8
Infant's Birthweight					
Low	335	4,010	53.3	±	4.1
Normal	535	75,333	67.8	±	3.8
Medicaid					
Medicaid at any time ¹	246	16,891	47.1	±	6.9
Before pregnancy	96	4,433	32.6	±	9.9
No Medicaid at any time	632	62,652	75.4	±	3.9

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 16
Reasons for stopping breastfeeding
1999 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Reason for Stopping Breastfeeding				
Go to Work or School	172	15,852	31.0 ±	5.4
Baby Didn't BF Very Well	132	10,484	20.5 ±	4.8
Not Enough Milk	180	14,694	28.7 ±	5.3
Felt It was Time to Stop	95	9,325	18.2 ±	4.4
Didn't Want to	81	6,717	13.1 ±	3.8
Taking Medication	50	3,257	6.4 ±	2.7
Baby Not with Mother	30	946	1.9 ±	1.3
Other	166	13,055	25.5 ±	5.0

Table 17
Reasons for not breastfeeding among mothers who never breastfed
1999 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Reason for Stopping Breastfeeding				
Didn't Want to	395	26,176	66.4 ±	6.1
Go to Work or School	125	8,311	21.1 ±	5.2
Taking Medication	79	3,566	9.0 ±	3.6
Better to Bottle Feed	95	3,820	9.7 ±	3.1
Takes Too much Time	51	3,183	8.1 ±	3.6
Baby Not with Mother	33	438	1.1 ±	0.5
Other	163	9,623	24.4 ±	5.6

Table 18
Prevalence of mothers receiving WIC by demographic characteristics
1999 Michigan PRAMS

	Mothers Receiving WIC			
	Sample n	Estimated N	Percent	95% CI
Total	804	43,221	33.7 ±	3.3
Age				
≤19 years	180	11,343	79.5 ±	8.2
20-29 years	480	24,413	37.6 ±	4.6
30+ years	144	7,465	15.2 ±	3.9
Race				
Black	582	14,681	63.7 ±	3.8
Non-black	226	28,616	27.3 ±	4.0
Education				
<H.S. Graduate	260	15,807	71.1 ±	9.5
H.S. Graduate	319	16,244	41.9 ±	5.7
Some College	187	8,921	29.5 ±	5.9
College Graduate	31	1,616	4.7 ±	2.6
Marital Status				
Married	197	15,236	17.6 ±	3.4
Other	613	28,112	66.6 ±	5.8
Infant's Birthweight				
Low	386	3,800	41.9 ±	3.5
Normal	416	39,398	33.1 ±	3.6

Table 19
Prevalence of mothers hospital stay following delivery by source of prenatal care payments
1999 Michigan PRAMS

	Private Insurance					Medicaid				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	992	88,064	100			577	34,031	100		
Mother nights in hospital										
Did Not Stay	2	362	0.4	±	0.6	2	27	0.1	±	0.1
1 night	145	15,463	17.6	±	3.3	99	7,170	21.1	±	5.7
2 nights	412	44,563	50.6	±	4.3	220	14,221	41.8	±	7.1
3 nights	240	18,737	21.3	±	3.5	143	8,082	23.8	±	6.1
4+ nights	191	8,716	9.9	±	2.4	113	4,531	13.3	±	4.5
Did Not Go	2	223	0.3	±	0.4	0	0	0	±	0.0

	Personal Income					Other				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	167	16,321	100			36	1,573	100		
Mother nights in hospital										
Did Not Stay	0	0	0.0	±	0.0	0	0	0.0	±	0.0
1 night	23	3,074	18.8	±	8.3	6	415	26.4	±	27.6
2 nights	72	7,895	48.4	±	10.3	10	574	36.5	±	34.1
3 nights	39	3,801	23.3	±	9.0	9	223	14.2	±	13.3
4+ nights	31	1,489	9.1	±	5.3	10	317	20.2	±	22.4
Did Not Go	2	62	0.4	±	0.5	1	42	2.7	±	5.3

	MICH CARE					Free Care				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	19	1,199	100			14	616	100		
Mother nights in hospital										
Did Not Stay	0	0	0.0	±	0.0	0	0	0.0	±	0.0
1 night	5	452	37.7	±	33.1	0	0	0.0	±	0.0
2 nights	6	270	22.5	±	27.2	9	210	34.1	±	44.9
3 nights	3	202	16.8	±	26.8	2	384	62.4	±	48.4
4+ nights	5	276	23.0	±	27.4	3	21	3.5	±	5.5
Did Not Go	0	0	0.0	±	0.0	0	0	0.0	±	0.0

Table 20
Prevalence of infants hospital stay following delivery by source of prenatal care payments
1999 Michigan PRAMS

	Private Insurance					Medicaid				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	966	87,883	100			565	33,947	100		
Infant nights in hospital										
Did Not Stay	9	101	0.1	± 0.1		6	275	0.8	± 1.1	
1 night	131	16,727	19.0	± 3.5		77	7,350	21.7	± 6.1	
2 nights	365	44,266	50.4	± 4.3		177	13,388	39.4	± 7.0	
3 nights	158	15,039	17.1	± 3.2		108	7,133	21.0	± 5.9	
4+ nights	301	11,526	13.1	± 2.6		197	5,801	17.1	± 4.7	
Did Not Go	2	223	0.3	± 0.4		0	0	0.0	± 0.0	

	Personal Income					Other				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	166	16,308	100			35	1,553	100		
Infant nights in hospital										
Did Not Stay	3	16	0.1	± 0.1		1	1	0.1	± 0.1	
1 night	18	2,989	18.3	± 8.3		5	781	50.3	± 31.9	
2 nights	64	8,163	50.1	± 10.4		8	155	10.0	± 9.6	
3 nights	28	2,984	18.3	± 8.5		6	196	12.6	± 12.8	
4+ nights	51	2,095	12.8	± 6.1		14	378	24.3	± 23.5	
Did Not Go	2	62	0.4	± 0.5		1	42	2.7	± 5.3	

	MICH CARE					Free Care				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Total	19	1,199	100			12	601	100		
Mother nights in hospital										
Did Not Stay	2	20	1.7	± 3.3		0	0	0.0	± 0.0	
1 night	5	452	37.7	± 33.1		0	0	0.0	± 0.0	
2 nights	5	263	21.9	± 27.2		6	181	30.2	± 42.1	
3 nights	1	181	15.1	± 26.7		2	391	65.1	± 46.8	
4+ nights	6	283	23.6	± 27.4		4	28	4.7	± 7.2	
Did Not Go	0	0	0.0	± 0.0		0	0	0.0	± 0.0	

Table 21
Prevalence of infants placed in intensive care units by
mother's demographic characteristics
1999 Michigan PRAMS

	Infants Placed In ICU			
	Sample n	Estimated N	Percent	95% CI
Total	500	13,380	10.6 ±	1.8
Age				
≤19 years	61	1,356	10.0 ±	5.9
20-29 years	255	7,847	12.3 ±	2.8
30+ years	184	4,177	8.6 ±	2.4
Race				
Black	265	3,153	16.3 ±	2.7
Non-black	233	10,155	9.6 ±	2.1
Education				
<H.S. Graduate	98	1,772	8.5 ±	4.0
H.S. Graduate	161	3,575	9.4 ±	2.7
Some College	130	3,713	12.5 ±	4.1
College Graduate	103	3,971	11.4 ±	3.9
Marital Status				
Married	243	9,117	10.5 ±	2.4
Other	261	4,290	10.9 ±	2.6
Infant's Birthweight				
Low	425	4,769	55.1 ±	3.8
Normal	76	8,578	7.3 ±	1.9
Medicaid				
Medicaid at any time ¹	220	4,573	11.7 ±	3.3
No Medicaid at any time	284	8,834	10.2 ±	2.2

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 22

Number of stressors mothers encountered during the year preceding delivery
1999 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Number of Stressors				
None	418	36,116	28.2 ±	3.1
1 Stressor	407	29,222	22.8 ±	2.9
2 Stressor	314	21,639	16.9 ±	2.5
3 Stressor	230	16,747	13.1 ±	2.5
4+ Stressor	453	24,411	19.1 ±	2.7

Table 22A

Number of stressors mothers encountered during the year preceding delivery
1999 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Number of Stressors				
None	418	36,116	28.2 ±	3.2
1+ Stressor	1,404	92,018	71.8 ±	3.2

Table 23

Type of stressors mothers encountered during the year preceding delivery
1999 Michigan PRAMS

	Sample n	Estimated N	Percent	95% CI
Type of Stressors				
Moved to New Home	627	45,136	35.3 ±	3.4
Family Member Was Sick	524	35,776	28.1 ±	3.2
Arguments with Partner	574	31,846	24.9 ±	3.0
Could Not Pay Bills	500	28,451	22.3 ±	2.9
Someone Very Close Died	404	23,383	18.3 ±	2.7
Someone Very Close Has Alcohol or Drug Problem	305	18,679	14.6 ±	2.6
Divorced or Separated	254	12,221	9.6 ±	2.1
Partner Didn't Want Pregnancy	218	14,987	11.8 ±	2.4
Respondent Lost Job, Undesired	245	12,232	9.6 ±	1.9
Partner Lost Job	194	13,463	10.6 ±	2.3
Respondent in Physical Fight	127	4,735	3.7 ±	1.1
Partner Went to Jail	133	6,286	4.9 ±	1.5
Respondent Was Homeless	59	1,874	1.5 ±	0.6

Table 24
Prevalence of smoking by demographic characteristics
1999 Michigan PRAMS

	3 months Before Pregnancy				Last 3 months of Pregnancy			
	Sample n	Estimated N	Percent	95% CI	Sample n	Estimated N	Percent	95% CI
Total								
No Smoking	1,232	86,579	69.5	± 3.4	1,434	103,045	80.9	± 3.0
Smoking	529	38,058	30.5	± 3.4	355	24,313	19.1	± 3.0
Age								
≤19 years	68	6,135	46.2	± 12.5	45	4,294	30.2	± 12.2
20-29 years	307	21,985	35.1	± 4.8	202	14,153	22.0	± 4.3
30+ years	154	9,938	20.4	± 4.7	108	5,866	12.0	± 3.6
Race								
Black	238	4,889	21.7	± 3.1	169	3,252	14.2	± 2.6
Non-black	291	33,126	32.7	± 4.1	188	21,078	20.3	± 3.6
Education								
<H.S. Graduate	154	10,811	54.0	± 10.7	114	8,322	38.4	± 10.6
H.S. Graduate	211	15,552	40.7	± 5.9	153	10,367	26.6	± 5.3
Some College	117	7,448	24.8	± 6.0	63	3,534	11.7	± 4.4
College Graduate	35	3,510	10.4	± 4.2	20	1,653	4.9	± 2.9
Marital Status								
Married	200	19,586	22.9	± 3.7	118	10,902	12.7	± 2.9
Other	333	18,505	47.0	± 6.2	240	13,440	32.2	± 6.2
Infant's Birthweight								
Low	285	3,520	39.8	± 3.7	203	2,499	27.8	± 3.3
Normal	240	34,454	29.8	± 3.7	149	21,776	18.4	± 3.1
Medicaid								
Medicaid at any time ¹	315	18,902	48.1	± 6.3	231	13,358	32.5	± 6.1
Before pregnancy	162	7,763	49.3	± 9.2	127	5,808	36.5	± 9.4
No Medicaid at any time	218	19,189	22.4	± 3.8	127	10,984	12.7	± 3.2

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 24, cont.
Prevalence of smoking by demographic characteristics
1999 Michigan PRAMS

	Currently Smoking			
	Sample n	Estimated	Percent	95% CI
Total				
No Smoking	1,312	93,485	74.1 ±	3.3
Smoking	423	32,694	25.9 ±	3.3
Age				
≤19 years	59	5,957	43.9 ±	12.7
20-29 years	238	18,861	29.5 ±	4.7
30+ years	126	7,877	16.2 ±	4.2
Race				
Black	168	3,529	16.1 ±	2.9
Non-black	257	29,147	28.1 ±	4.0
Education				
<H.S. Graduate	119	10,394	49.8 ±	10.9
H.S. Graduate	178	13,228	34.3 ±	5.7
Some College	87	5,746	19.1 ±	5.4
College Graduate	32	2,993	8.8 ±	3.9
Marital Status				
Married	171	16,646	19.4 ±	3.6
Other	256	16,081	39.9 ±	6.4
Infant's Birthweight				
Low	231	3,014	34.5 ±	3.7
Normal	188	29,597	25.2 ±	3.6
Medicaid				
Medicaid at any time ¹	246	16,695	42.2 ±	6.4
Before pregnancy	119	6,917	45.4 ±	9.7
No Medicaid at any time	181	16,032	18.5 ±	3.6

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Table 25
Prevalence of drinking by demographic characteristics
1999 Michigan PRAMS

	3 months Before Pregnancy				Last 3 months of Pregnancy			
	Sample n	Estimated N	Percent	95% CI	Sample n	Estimated N	Percent	95% CI
Total								
No Drinking	1,049	63,668	49.1 ± 3.5		1,681	121,171	93.4 ± 1.7	
Drinking	742	63,659	49.1 ± 3.5		108	6,054	4.7 ± 1.4	
Age								
≤19 years	54	4,413	30.8 ± 11.3		4	139	1.0 ± 1.0	
20-29 years	386	31,512	47.9 ± 4.9		36	1,772	2.7 ± 1.4	
30+ years	302	27,734	55.9 ± 5.6		68	4,144	8.4 ± 3.0	
Race								
Black	279	6,709	28.8 ± 3.6		64	1,211	5.2 ± 1.7	
Non-black	461	56,545	53.5 ± 4.2		45	4,850	4.6 ± 1.6	
Education								
<H.S. Graduate	99	8,436	37.7 ± 10.4		22	525	2.4 ± 1.3	
H.S. Graduate	241	19,072	48.8 ± 5.9		35	1,590	4.1 ± 2.3	
Some College	196	13,973	45.5 ± 6.7		27	1,862	6.1 ± 3.3	
College Graduate	191	20,756	59.3 ± 6.6		23	2,055	5.9 ± 3.1	
Marital Status								
Married	425	44,349	50.7 ± 4.3		51	4,594	5.3 ± 1.9	
Other	322	19,371	45.7 ± 6.1		58	1,468	3.5 ± 1.6	
Infant's Birthweight								
Low	332	3,975	42.8 ± 3.5		62	601	6.5 ± 1.7	
Normal	404	59,550	49.5 ± 3.7		45	5,444	4.5 ± 1.5	
Medicaid								
Medicaid at any time ¹	263	16,560	39.6 ± 6.2		53	1,097	2.6 ± 1.2	
Before pregnancy	109	5,118	31.2 ± 9.0		31	581	3.5 ± 1.8	
No Medicaid at any time	484	47,161	53.5 ± 4.3		56	4,964	5.6 ± 2.0	

1. Medicaid at any time was defined as having had Medicaid coverage just before pregnancy occurred, Medicaid-paid prenatal care, or Medicaid-paid delivery.

Tables 26
 Percentage of unintended live births by prenatal care payment source
 1999 Michigan PRAMS

Source of Payment	Intended					Unintended				
	Sample n	Estimated N	Percent	95% CI		Sample n	Estimated N	Percent	95% CI	
Private Health Insurance	607	57,644	68.9	± 4.0		361	26,074	31.2	± 4.0	
Medicaid	198	10,972	33.0	± 6.6		450	22,266	67.0	± 6.6	
Personal Income	101	11,047	73.0	± 8.9		61	4,094	27.0	± 8.9	
MICH CARE	5	391	44.1	± 37.4		13	495	55.9	± 37.4	
Free Care	3	34	5.9	± 10.4		9	536	94.1	± 10.4	
Other	11	532	29.6	± 25.5		34	1,266	70.4	± 25.5	

